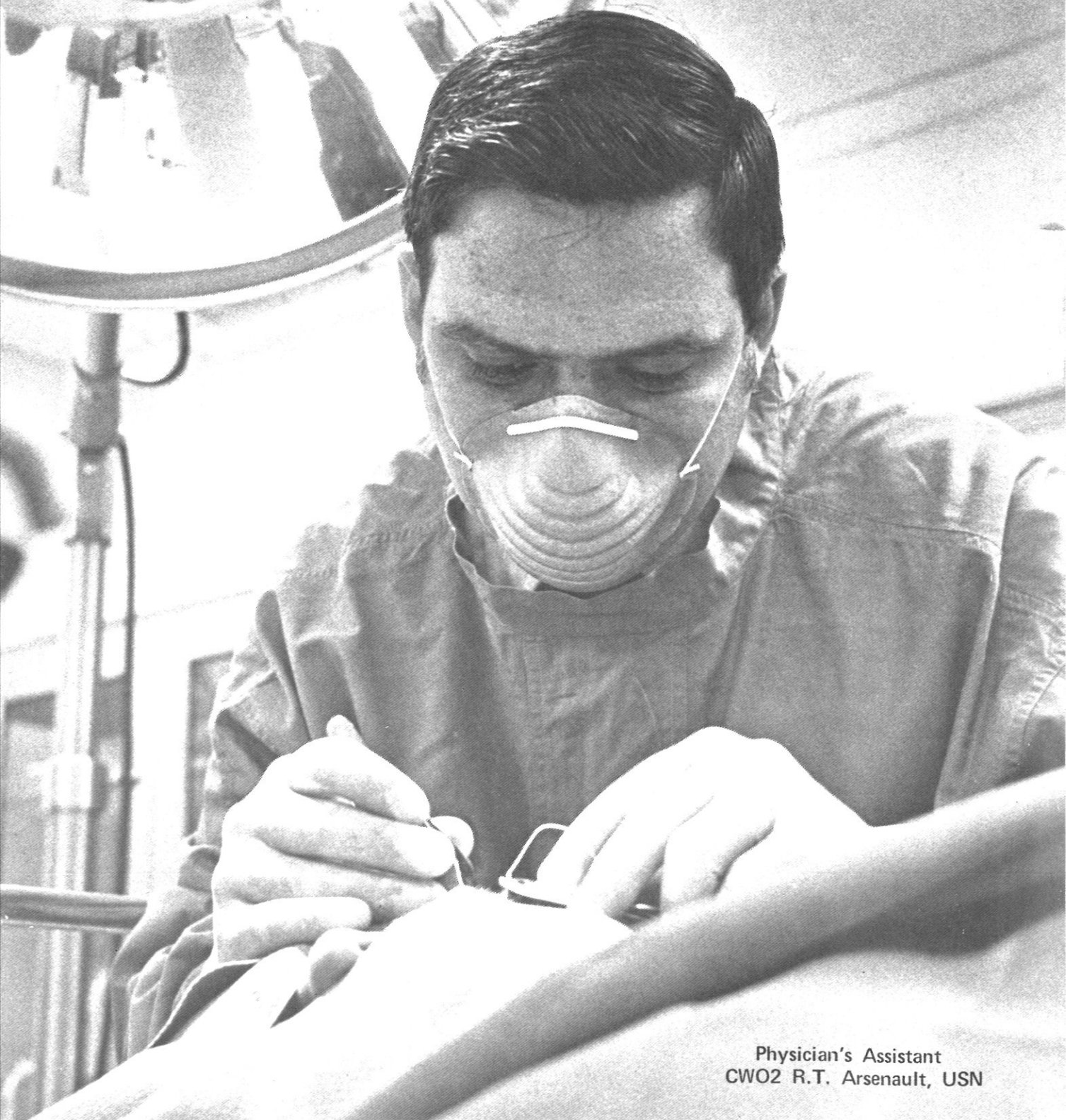


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Physician's Assistant
CWO2 R.T. Arsenault, USN

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Credits: All pictures are Official Navy Photographs unless otherwise indicated.

COVER: Physician Assistant CWO2 Raymond T. Arsenault cares for a patient in the new outpatient clinic at the Brooklyn Naval Support Activity. The role of physicians' assistants in naval medical facilities was one of numerous topics discussed at the SAC 7 meeting last September. Part I of our report on this conference begins on page 3.

The continued support of the Media Division, Educational Programs Development Dept., Health Sciences Education & Training Command (HSETC), NNMC, Bethesda, Md., is gratefully acknowledged.

CORRESPONDENCE AND CONTRIBUTIONS from the field are welcomed and will be published as space permits, subject to editing and possible abridgment. All material should be submitted to the Editor, *U.S. NAVY MEDICINE*, Code 0010, Bureau of Medicine and Surgery, Washington, D.C. 20372.

NOTICES should be received not later than the third day of the month preceding the desired month of publication.

The Case for Navy Graduate Medical Education



VADM Custis discusses medical education at SAC 7.

This is the first of three issues which will offer in-depth coverage of the Seventh Annual Specialties Advisory Conference and Committees' Meeting (SAC 7), held last September. The concern expressed by the conference participants inevitably relates to a continued assurance of military medicine's role in graduate medical education—a subject which should be of vital interest to all of you.

To the health professional, the role of graduate education and continuing medical education as an essential element in quality health care has rightfully become axiomatic. While we are focusing our residency training programs on predetermined needs of the Navy Medical Department, we must not lose sight of our concomitant shared responsibility with the private sector. Large numbers of service-trained specialists have left and will continue, ultimately, to leave the military for private practice.

This is as it should be, for if we in the military health care system, as sizeable users of medical manpower, were to fail in providing our fair share of essential graduate education, we would become complete parasites on the civilian medical/dental academia. Worse still, military medicine would lose its time-proven, single greatest career incentive were its graduate training programs to be further circumscribed and downgraded. Cost-wise these programs are bargain based, providing the great bulk of hospital staff expertise and service.

Furthermore, in today's medical environment of mandated continuing education and recertification, the specialist, once trained and certified, must be afforded the opportunity to practice the full range of his specialty, even when assigned to nonresidency training hospitals.

Because medical training, in its multiple forms, is today unalterably

bound to patient care, the patient mix provided by non-active duty beneficiaries must be accorded to all military hospitals. Those who might arbitrarily confine dependent and retired beneficiary care to only military medical training centers must somehow be given insight to the consequences of such shortsightedness.

Should the time ever arrive when military health care is limited to the active duty member only, our capacity for graduate and continuous medical education will be sacrificed along with the quality of rendered care. No self-respecting health professional could be held in such a system beyond his period of obligatory service.

I urge every Navy health professional to take every opportunity to communicate this perspective to all with whom he comes in contact; to all who have a need to understand; to all who have a vested interest in our good quality health care delivery; and to all who have a willingness to assist us in its preservation.

Surgeon General of the Navy

The Surgeon General's Seventh Annual Specialties Advisory Conference and Committees' Meeting

THEME

**Graduate Medical Education:
Individual and Institutional Proficiency,
Evaluation, and Accountability**

This conference was held 8-12 September 1975 in Arlington, Virginia. The following report of this annual session represents an edited (sometimes paraphrased or abbreviated) version of the remarks and presentations of specified individuals. Their comments do not necessarily reflect official views of the Navy Department, or the naval service at large. [Ed.]

PROGRAM

Monday, 8 September 1975

- 1300: Registration
Begin review of applicants
- 1900-1930: Committee chairmen meeting

Tuesday, 9 September—First Plenary Session

- 0815-0830: *Administrative Announcements*
CAPT W.M. McDermott, Jr., MC, USN
- 0830-0835: *Welcoming Remarks*
RADM E.J. Rupnik, MC, USN
- 0835-0905: *"The Anatomy of Accountability"*
VADM D.L. Custis, MC, USN
Surgeon General of the Navy
- 0905-0950: *"Training and Education Update"*
CAPT W.M. McDermott, Jr., MC, USN
- 1010-1100: *"Navy Ambulatory Health Care: Present and Future"*
CAPT J.J. Quinn, MC, USN
CAPT J. Bloom, MC, USN
- 1100-1130: *"Navy Medicine: A Personnel Profile"*
CAPT R.E. Strange, MC, USN
- 1130-1200: *Panel Discussion*
RADM E.J. Rupnik, MC, USN
RADM R. Laning, MC, USN
CAPT R.E. Strange, MC, USN
CDR J. Cassells, MC, USN
CAPT W.M. McDermott, Jr., MC, USN
(Moderator)

- 1200-1215: *Instructions to Specialty Advisory Committee Conferees*

CDR J. Cassells, MC, USN

- 1300: Committee workshops. Review of applicants.

- 1400: Tri-service meeting of training directors. Appointments with BUMED Codes 31, 311, etc.

Wednesday, 10 September—Second Plenary Session

- 0830-0900: *"Definitions and Glossary of Educational Terms, Concepts, and Objectives Related to Specialty Training"*
CAPT D.M. Gragg, MC, USN
- 0900-0940: *"Update of USUHS: Progress, Objectives, Evolution, and Navy Program Interfaces"*
Jay P. Sanford, M.D.
Dean, Medical School, USUHS
- 1000-1040: *"Realities of Integrated House Staff Training Programs"*
James E. Eckenhoff, M.D., Dean, School of Medicine, Northwestern University
- 1040-1120: *"Legitimacy, Strength, and Coming of Age of Family Practice"*
Arthur D. Nelson, M.D., Director, Family Practice Center, Scottsdale Memorial Hospital
Scottsdale, Arizona
- 1120-1150: *Panel Discussion*
CAPT D.M. Gragg, MC, USN
Jay P. Sanford, M.D.
James E. Eckenhoff, M.D.
Arthur D. Nelson, M.D.
- 1300-1630: Committee Workshops. Continue review of applicants at individual committee chairmen's discretion.
- 1900: Banquet Dinner.
"Principal and Common Interests in Federal Health Care"
Theodore Cooper, M.D., Assistant Secretary for Health, Department of Health, Education, and Welfare

Thursday, 11 September

0800-1200: Committee Workshops. Continue review of applicants at individual committee chairmen's discretion.

1400: Review and collation of slates. Compilation of major issues resulting from committee workshops.

Friday, 12 September—Third Plenary Session

0745-0945: Discussion of major issues. Surgeon General commentary.

1000-1100: *"Perspectives In Medical Support"*

VADM J.D. Watkins, USN

Chief of Naval Personnel

1100-1200: Discussions of major issues continued.

1200-1215: *Closing Summation*

CAPT J. William Cox, MC, USN

FIRST PLENARY SESSION

Administrative Announcements

CAPT W.M. McDermott, Jr., MC, USN:

Admiral Custis, distinguished flag officers, participants, guests, ladies and gentlemen: I would like to welcome you to the first session of the 1975 Specialties Advisory Committee meeting. This is the seventh time that we have met to address Navy Medical Department education and training, and to select candidates who will participate in our training programs in the future.

I want to thank you for being here. Never before have we needed you as badly as we need you today. In this era of the all-volunteer environment and the loss of the Berry Plan, the strength of our training programs and the resolution of the problems which beset us are all-important.

The amount of work that we are going to ask you to do in the next 3½ days is staggering. In addition to reviewing the records of hundreds of applicants and making recommendations for selection, you will be asked to develop advice and background material referable to many of the problem areas which we now face.

Most, if not all of you, have been at earlier conferences. The format will be much the same. I had the opportunity to get together with the chairmen of the specialty groups to outline many of the specific problem areas we will be asking you to address at this meeting. On Friday morning we will hear VADM James Watkins, Chief of Naval Personnel, describe his views on medical support, staffing, and other personnel problems. This will give all of us the chance to recognize another side

of an increasingly complex picture. It will be extremely valuable in our future planning.

Also on Friday morning we will have the opportunity, as we did last year, to present the results of our deliberations to the Surgeon General. This session will be chaired by CAPT Marty Valaske, director of clinical services at Naval Regional Medical Center, San Diego.

Before we begin our program today, I would like to welcome several groups of participants who will be with us during our meeting. I would first like to introduce RADM Robert Laning, Bureau of Medicine and Surgery, Code 5, who will be with us as chairman of the Operating Forces Group. This group will serve as the advocates of our Medical Corps officers in the field. We are most insistent that these officers be brought into our graduate training programs whenever possible. I would also like to welcome our dental colleagues. Although they will not select people into their training programs at this time, they will participate in our deliberations and will help us formulate recommendations for the development of policy in areas of mutual interest.

I would also like to welcome members of the Navy Health Care Review Committee. And a particularly warm welcome goes to our old friend, CAPT Steve Barchet, my predecessor in this job. I also want to welcome committee members CDR Frank Anderson (MSC) of OP-964D, and CDR Robert Bacon, USN, of the Bureau of Naval Personnel, who will be with us during our deliberations.

Last, but not least, I want to welcome our Army and Air Force colleagues. I hope you will all feel free to talk with them, discuss mutual problems, and identify those areas in which we can participate in their training programs and they in ours.

By working with all these different groups, we can help ensure that we make the fullest possible use of our opportunities for education and training.

Welcoming Remarks

RADM E.J. Rupnik, MC, USN

Assistant Chief for Human Resources and Professional Operations, BUMED Code 3

Ladies and gentlemen, good morning. I would like to add my welcome to this group. I think that this is a tremendous opportunity for all of us to get together and share our thoughts on how education and training in the Navy should proceed in the

months and years ahead. The theme of this year's meeting is accountability. Never before have we been called upon in so precise a manner to manage our personnel resources and the training programs which support them. While the line community recognizes our difficulties in this era of constraint in supplying them with the support they see as essential to meet their requirements for health care, they are emphatic that our programs be managed in a cost-effective and efficient manner.

We are just as emphatic that we can provide this capability. It will mean that we may have to realign our priorities in order to provide the maximum care to our ships, squadrons, and Marine units. It will mean, quite possibly, that many training goals for individuals may have to be interrupted in the interest of overall readiness and support. This policy, of necessity, will impact on our training programs. In the next six months we will have to account for each of our training billets. We are presently some 249 positions over our authorized allowance. By phasing out some programs, reducing others, and realigning staff billets into training billets, we hope to be able to accommodate our training requirements within our total corps structure. Any requests for additional personnel to support new programs must be supported through compensatory offsets. Additional billets for new programs will only be requested through the normal budgeting cycle. This represents only one aspect of the accountability that you will hear more about over the next several days.

Overheard on the campus of one of our major universities was a conversation between an instructor and the head of his department, an old professor with considerable academic status. The instructor was complaining that the professor gave exactly the same exam year after year, and he pointed out to the professor the fallacy of such an endeavor. He was afraid that the students would soon get to know all the questions, and would therefore score a perfect grade. "You wouldn't know how to grade them after that," he said. The old professor replied, in a very authoritative manner, "That's not possible. Each year I change the answers."

It is a privilege for me to present a man who by innovative management has changed a considerable number of the answers to the questions which we face: VADM Donald L. Custis, Surgeon General of the Navy.

"THE ANATOMY OF ACCOUNTABILITY"

VADM D.L. Custis, MC, USN
Surgeon General of the Navy

I am pleased to add my welcome to you—the specialties advisory conferees. During the past six years this conference has acquired tremendous significance and influence. The talent gathered in this room is the pride of Navy medicine. Please know how much the responsibility you carry and the work you do is appreciated.

Those of you who are veterans of SAC should take satisfaction in problems solved, not be discouraged by old problems still around and not surprised when the best of recommendations cannot always be implemented. Each year new issues arise, and your agenda this week is no exception. Your main concern is defined in the theme, "Evaluation and Accountability of Navy Graduate Medical Education." Your attention, however, cannot and should not be so closely confined. Today, as never before, military medicine's education and training effort interdigitates with literally everything we do.

You're going to have a lot to think about and a lot to talk about. For my part, I wish to avoid, in these opening remarks, preempting your thought patterns. Besides, it takes a lot longer to tell what one thinks than to state what one knows. With your indulgence, I would like to state what I know of today's environment, and push your focus onto general issues in accordance with my own professed knowledge of them.

The technique risks provocation. In fact, when I handed the first draft of these remarks to my secretary for typing, it precipitated the following message dialogue:

"Dear Boss: How about a softer verb than 'know'? Confucious said, 'He who knows does not speak, and he who speaks does not know.' Signed/Bonnie."

So I scratched out the word "know" and substituted "believe." A little later, Bonnie sent me another quotation: "Belief is what is held without evidence by one without knowledge of things without parallel.—Mark Twain."

I answered her: "Dare I use the word 'perceive'?" The next day she replied again in writing: "Better not; it's too imprecise. For example, how does one perceive a kiss? It's of no use to one, yet absolute bliss for two. The small boy gets it for nothing, the young man has to lie for it, and the old man has to buy it. It's the baby's

SAC 7: Plain talk from Medical Department leaders



VADM Custis



RADM Rupnik



CAPT Bloom



CAPT Strange

right, the lover's privilege and the hypocrite's mask. To a young girl, it is a manifestation of faith; to the married woman, hope; and to the old maid, charity.—Author unknown."

My answer: "Dear Bonnie: One thing I know—there is endless merit in knowing when to be done with it.—Author: Thomas Carlyle."

While searching *Bartlett's Quotations* during the course of this tussle, I found where someone had said the egotism of professed knowledge is the anesthetic which dulls the pain of stupidity. Experience in my job is, believe it or not, making me humble—probably why it's beginning to hurt.

In my address to the SAC Conference two years ago, I urged that all items be considered against a background of a short crisis followed by a mid-range and an out-year time frame. The short term crisis was due, mainly, to the cessation of the draft in the absence of needed compensatory reprogramming. We are now through that period and into the mid-range period of Fiscal Years 1976 through 1978.

Retrospectively, our friends in Congress have treated us very well. Not only did they authorize more equitable pay scales, but they came to our rescue when denial of implementation was threatened. They have provided us with ambitious scholarship subsidies, ensuring high volume accessions, and have faithfully continued their support of our heavy commitment in medical facilities construction. We have every reason to expect, during this session, favorable action on two other vital programs: the funding for Phases II and III of the Uniformed Services University of Health Sciences, and legislation providing military medical personnel exemption from mal-

practice tort responsibility. Parenthetically, we are also assured there will be correction of inversion in retirement pay.

Our problems, as you know, stem not from Congress, but from the self-styled health care analysts and planners who interpret the law throughout the executive bureaus. Their influence in top level decision making is both fascinating and ominous to behold. They are the same analysts, economists, and sociologists who bedevil the private health care sector—the regulators, against whom organized medicine has resorted to court action. Would that we could regulate the regulators, but they are too often inaccessible, irrepressible, and irresponsible.

We were told by *Navy Times* last week that the Office of Management and Budget (OMB) Inter-agency Survey Report on military medicine is not expected to recommend any sweeping changes, nor register any agreement on whether care in civilian or military facilities is more costly. Apparently, *Navy Times* has information not available to those of us on the steering committee of the study.

In my annual report last February on the status of Navy medicine, taped as a BUMED SITREP with the title "Quo Vadimus," I predicted that, should the OMB study show military medicine in a favorable light, there could be expected another study to discredit the OMB study. That is exactly what has now happened. The report due two months ago showed military medicine to be considerably more cost effective than care in the private sector. This revelation did not serve the purpose of our adversaries. So the report is being delayed while a new outside task force refutes

those findings. "Get your facts first," said Mark Twain, "and then you can ignore them as much as you please."

Simultaneously, there has quietly been launched still another study by the Office of the Secretary of Defense with these stated objectives: To determine (1) the advantages of consolidating the Surgeons General into a single Armed Forces Corps; (2) the cross-service utilization of medical care; (3) the advantages and disadvantages of the purchase of services from civilian sources; and (4) whether there are avoidable costs in shifting care between military facilities and CHAMPUS.

If all that sounds familiar, it is only history repeating itself—which is one of the things wrong with history.

As for the OMB recommendations, I frankly don't know what they'll be. It is true that our fear that OMB would let us down has been allayed. We could now be content would they only let us up. As we move into the mid-range period of our renewal, it would be nice if all our detractors would accord us some benign neglect. But we don't expect it, nor is there much we can do about it.

We do require and expect, however, continued support and advocacy from our own line and secretariat. In recent months we have suffered an ironic erosion of their respect. Their consumer perception of our effectiveness is hardly flattering. Many new flag officers have just arrived in OPNAV, all of them wearing wings, dolphins, and surface insignia. During our crisis years they were out holding operational commands, watching medical officers disappear from the fleet, and they were not privy to our program planning for recovery. To them a doctor is a doctor is a doctor. They have brought to the Pentagon an impatience regarding any further delay in fulfilling the need for operational medical support and primary care. Their ears are critically attuned to such terms as "doctor shortage," "specialty imbalance," "fleet medical pool," and "hospital overstaffing."

In short, our moratorium on full primary care performance is in jeopardy. Unless this default is corrected very soon, our consumers' perception of us will seriously threaten our reputation as a military health care system. This problem, with all its implications and consequences, must now be given top priority attention. We must accelerate into a shortened time frame the filling of empty operational medical billets, both afloat and ashore.

But you and I know this issue has far greater depth than just a superficial exercise in personnel distribution. If we do not soon succeed in creating an operationally oriented and motivated Medical Corps, we are courting disaster. Success depends on every program director in this room inculcating within his trainees an appreciation that medical support to the fleet is at the very heart of what Navy medicine is all about. This truism must be taught by example, by impression, by repetition, and admonition. We can no longer accommodate—we can no longer afford—the schizoid philosophy that we are health professionals first and naval officers second. Such feigned duality of profile must and will be rolled into one. I urge you to disabuse all trainees in your charge of any ideology that they can wear this uniform and insignia and yet somehow not join the Navy.

Let us consider now those additional environmental factors requiring, in the very near future, a realignment of our educational effort. We currently have 28% of our total medical officer numbers in graduate residency billets—a preponderance which we have every reason to expect will be challenged in the coming budget cycle. We cannot and need not maintain that volume indefinitely. Under past circumstances of personnel instability, we determined our trainee volume and mix by the seat of our pants. Historically, our training effort also worked to the greater benefit of the private sector, for two-thirds of all Navy-trained medical specialists resigned upon completion of their obligated active duty.

It would appear that we are now moving into an era of increased manpower stability. The Uniformed Services University graduates will feature full career commitments. Large numbers of HR-2 scholarship accessions will have longer periods of obligation. And I am confident that their numbers can be increased, if need be. With escalating costs of medical education, tuition in most schools having already reached six- to ten-thousand dollars per year, federal subsidies across the board have become mandatory. Variations on obligated payback service will be commonplace in the civilian medical sector.

Progressively restrictive regulations in the private health care system are but prodromata of more to come. Relief from crippling malpractice insurance premiums is clearly not in sight. Our recruiting success, increasing retention, and other early indices suggest that we are moving into a buyer's market. We are currently up to authorized

strength, but it represents a depressed, inadequate level. With relief from this imposed shortage of physicians—and by imposed I mean that while we are staffed at our end-year strength, it is a strength established by higher authority and one which we believe insufficient to our requirements—we have no doubt of our ability to recruit in quality and quantity. We expect an increase in our authorized end strength this year from DOD and CNO. It must also accommodate the staffing needs of two new naval hospitals at New Orleans and Okinawa.

I assure you that until we are more certain of the exact size of tomorrow's Navy medical commitment, and more assured of our manpower stability, we will resist any arbitrary, premature reduction in numbers of our residency training volume. Meanwhile, there are already clear directional signals to guide us. This is how I read them: We must:

- 1) Develop an analytical method for projecting tomorrow's professional personnel needs, specialty by specialty, as a basis for graduate training programming.

- 2) Produce specialists who are not only operationally motivated, but who have retained some ability as generalists and a capacity to interface with generalists.

- 3) Give increased priority to the training of primary care physicians.

- 4) Improve and accelerate the training of operational and occupational specialists.

- 5) Optimize the early assignment of HR-2 graduates to operational duty antedating their specialty training.

- 6) Make careful, conservative, and flexible use of the NADDS program—the non-active-duty deferment for training.

- 7) Give all possible cooperation and support to the Uniformed Services University of Health Sciences. It will prove to be the single greatest constructive addition to the Navy since the introduction of lime juice.

The common denominator of what is to be demanded of everyone in the nation's health care field is *better accountability*. That requirement is being exacted of us in the federal services first, simply because we are more accessible and susceptible.

The Navy medical system in the past three years has undergone tremendous structural change with functional reorganization of headquarters, regionalization of field facilities, and

command alignment of education, training, and research. But structural change is not in itself an automatic panacea for all our problems. What we do have now is the organizational structure of our next developmental stage—that of stabilization and efficiency, based on true performance variance analysis. Throughout the system, we need predetermined goal identification, and objective monitoring of progress toward those goals. This in turn requires a modern, automated management information system, the acquisition of which I predict will be the most constructive accomplishment to come out of the OMB study.

More specifically, we need ongoing analysis of demographic demand data, management information, and work productivity indices. Only then can we design more dependable contingency plans, make more rational operational decisions, accurately prioritize service commitments, clearly identify educational and research needs, anticipate resource shortfalls, and achieve solid accountability. However, it must be appreciated that in *any* health care system many substantive decisions can never be made with complete and dispassionate precision. The art of medicine will always feature qualitative factors not subject to quantitative analysis.

We have some exciting times ahead and, by comparison to other systems, the greatest potential to create within the Navy Medical Department a national showcase of quality and efficiency. We are the organization with quality people whose skills, enthusiasm, and dedication have always been equal to the challenge of the moment. I have every confidence in the future of Navy medicine because of your ability to meet the challenges of the next few years as well as the next few days. You have a job cut out for you, and ample reason to whistle while you work.

Have a good conference.

"EDUCATION AND TRAINING UPDATE"

**CAPT W.M. McDermott, Jr., MC, USN
Deputy to Special Assistant for Medical
Department Education and Training,
BUMED Code 0011-1**

Over the past few years, a succession of speakers, including myself, have stood at this podium and announced with pride that we were getting bigger and bigger and bigger. Bigness was equated with goodness. Bigger was equated with

the best. However, at some point we lost sight of the entrepreneurial fact of life that training is overhead; and as in the business world, overhead cuts down on your profit. While dollars and cents are profit in the business world, the quality of care provided our patients within our available resources represents *our* profit. In the next few minutes, therefore, I am going to review with you some of the ways in which our overhead and profit ratio has suffered as a result of a perhaps misguided increase in the size of our training effort.

This slide [Figure 1] represents our status with regard to medical education as we began the academic year 1975-1976. Within the past year we have made adjustments in our training program which will result in marked modification in the future. I will discuss this in more detail later.

To fill these training positions, we processed over 519 applications. We presented for final review 214 applications from medical officers, 120 from interns, and 175 from civilian sources. Of the civilians, 97 were foreign medical graduates. From all the applications, SAC-75 recommended for training 182 medical officers, 101 interns, and

- 9 naval hospitals
- 35 specialties/subspecialties
- First-year graduate medical education positions/residencies/fellowships
- Duration: 1-6 years. Average 3.7 years
- Annual first-year graduate medical education positions: 208
- Annual entries for residencies: 237
- Average medical officers in training: 850-900
- Civilian outservice billets: 42
- Average annual output: 210-220
- Average output primary care: 45 %
- Navy medical officer faculty/trainee ratio: 1.5:2

FIGURE 1.—Navy graduate medical education: academic year 1975-76.

Program	Number of Graduates 1975	Number of Graduates Starting 1975	Expected Number of Graduates 1976
AFHPS (1975)	310	135	300
MOSP (1965)	64	63	57
SMSP	13	8	5
Early Commissioning Program (1915)	14	—	11
Civilians	—	3	—

FIGURE 2.—Graduates of Navy-sponsored medical education programs.

28 civilians. This year we will process approximately 70 fewer applications for our graduate medical education programs, with 84 foreign medical graduates included in the total number.

The next slide [Figure 2] shows the number of graduates from our scholarship programs this year, and the anticipated number for the summer of 1976. Those who graduated this year are actually now in training in our hospitals or in civilian programs. They will, of course, be reviewed by us for selection for continuation of training in the following year.

This next slide [Figure 3] summarizes our selection of applicants who entered our first-year graduate medical education programs in July 1975. As you know, we ran a review and grading procedure at the Bureau in September 1974. The grading sheets were brought to this committee to obtain your recommendations about these candidates. Then, back at the Bureau, we ran a "mini-match" to select our candidates. We think we did rather well. We didn't give everyone their first choice, but as you can see, by far the preponderance of candidates received choices by program and by hospital well up on their selection list.

Last year 77.8% of our interns or graduate-level-one trainees were selected for further training in an unbroken continuum. This year we ask you to look very carefully at the graduate-level-one applicants who seek further training. In selecting, our emphasis must be on medical officers who have served in the fleet or in opera-

Total Applicants	402
Total Selected	209
Assignments by Program Preference:	
First choice	167
Second choice	27
Third choice	11
Fourth choice	1
Fifth choice	3
Total	209
Assignments by Hospital Preference:	
First choice	143
Second choice	34
Third choice	15
Fourth choice	10
Fifth choice	7
Total	209

FIGURE 3.—Selection of G-1 level applicants.

Specialty	Number of Residents and Length of Training
Aerospace Medicine	6 for 2 years
Angiography	1 for 1 year
Child Neurology	1 for 2 years
Child Psychiatry	2 for 2 years
Forensic Pathology	1 for 1 year
Genetics and Metabolism	1 for 2 years
Hematology	1 for 2 years
Medical Infectious Diseases	1 for 2 years
Neonatology	2 for 2 years
Neurology	1 for 4 years
Neurosurgery	1 for 3 years
Otology	1 for 1 year
Pediatric Allergy	1 for 2 years
Pediatric Infectious Diseases	1 for 2 years
Pediatric Radiology	1 for 1 year
Perinatology	2 for 2 years
Plastic Surgery	2 for 2 years
Preventive Medicine	1 for 1 year; and 1 for 3 years
Rheumatology	2 for 2 years
Tropical Medicine	1 for 1 year
Underwater Physiology	1 for 2 years

FIGURE 4.—Residents in outservice training beginning July 1975.

tional billets. This does not imply that we will allow a decrease in the quality of candidates we choose to train. Rather, it reemphasizes that the medical officer who is not selected for a continuum of training—because of position limitations, indecisiveness as to further training desired, or a genuine desire to participate in the operational Navy—must be allowed access to specialty training at a later time. We must continue to hold this option open to qualified physicians in the future.

Outservice training continues to be a viable method of training a small number of highly qualified medical officers in selected specialties. This slide [Figure 4] shows the residents who entered outservice training this academic year. We must be very careful with our selections for outservice training. It is very expensive. In order to justify an outservice training billet, we must establish a clear and unqualified requirement. We must show where this position will fit into our future health care programs.

A viable alternative to outservice training, one that will be used whenever possible, is placement of physicians in Army and Air Force training pro-

Program	Institute	Duration
Child Psychiatry	Letterman General Hospital	1 for 2 years
Forensic Pathology	Armed Forces Institute of Pathology	1 for 1 year
Hematology	Letterman General Hospital	1 for 2 years
Neonatology	Fitzsimons General Hospital	1 for 2 years
Pathology	Armed Forces Institute of Pathology	1 for 2 years
Pediatric Allergy	Walter Reed Army Hospital	1 for 2 years
Pediatric Infectious Diseases	Walter Reed Army Hospital	1 for 2 years
Rheumatology	Walter Reed Army Hospital	1 for 2 years

FIGURE 5.—Navy residents in Army training programs.

Bethesda, Md.	39
Camp Pendleton, Calif.	9
Charleston, S.C.	9
Jacksonville, Fla.	9
Oakland, Calif.	34
Pensacola, Fla.	8
Portsmouth, Va.	36
San Diego, Calif.	55
Philadelphia, Pa.	4 (psychiatry)
Total	203

FIGURE 6.—Numbers of first-year training positions to be offered in naval hospitals in training year 1976-77.

grams. We will place no physician into an outservice billet for training if the Army or Air Force can provide a similar or equally suitable course. This slide [Figure 5] shows Navy physicians who have been placed into Army programs for this academic year. We hope that we can do as well in the next academic year. Similarly, we hope that we will be able to help the Air Force and the Army in their training efforts.

The next slide [Figure 6] represents the 203 first-year graduate medical education positions available in naval hospitals beginning in July 1976. We arrived at this total by eliminating first-year entry positions at Philadelphia, with the exception of psychiatry. We anticipate that these 203 graduate-medical-education-one positions will accommodate approximately 50% of our subsidized students who graduate in 1976. The remainder will be deferred from active duty either

for one year of advanced training, or for a full continuum in specialties in which we anticipate a critical shortage. Physicians who are not deferred will be called to active duty in the summer of 1977. We hope that they will subsequently seek continuing graduate education within our system. And we must ensure that our training system continues to be strong enough to accommodate qualified applicants.

In the next few minutes I would like to address several of the problem areas we have struggled with at the Bureau during the past year, and which have had a definite impact on your and our efforts to provide quality training. One of these areas is money for travel to conferences, meetings, seminars, and short courses. In many instances, these meetings and short courses were integral parts of our residency programs.

For Fiscal Year 1975 we had budgeted 5.69 million dollars. As of April 1975, a ceiling was imposed of 3.8 million dollars, a loss of over 30% of our funds. During the six months from January through the end of the fiscal year, the financial situation was on again, off again, making it extremely difficult for us to plan and program exactly what we were going to do—difficult for us, and I am sure absolutely impossible for you as program managers. We would approve a request one day and disapprove it the next. I know that many times you must have thought that we had gone out of our minds, but this may help explain our actions.

This year we have less money than we asked for. It does not look as if we are ever going to have the money that we need to do the job properly. Even with very careful management we will have areas which we consider vital but are just not able to support.

Another restriction placed upon us was restriction of our training programs, the output of which would have helped us in providing quality care to our beneficiaries. As you know, we had developed a strong physician's assistant training program in conjunction with the Air Force at Sheppard Air Force Base, Texas. We had programmed an input of 102 people per year into this program, which would have given us the level of support we had anticipated in a reasonable time frame. A Deputy Secretary of Defense memo cut in half the number of students we could put into the physician's assistant training program this year. We are now authorized to start only 51 students. No resolution to this problem has yet appeared. We do not know

what will happen, but this restriction certainly has implications for us in addressing and developing the health care provider resources we need to meet our obligations.

Some months ago RADM E.J. Rupnik, CAPT J. Feith, CAPT R.E. Strange, CAPT J.S. Cassells, and I went to Philadelphia to announce that we were phasing out graduate medical training at that command. It was not a pleasant task for us, but it reflected our recognition of the reality that we must consolidate our training programs in order to keep them strong and viable. We have only so much money and so many teachers, and the decision to take this action formally acknowledged these facts. Although, naturally, the program chairmen and staff at Philadelphia did not like to see their programs eliminated, they appreciated the realities with which we must deal and gave us their strongest support.

We will make every effort to keep these programs strong while they are being phased out, but we will restrict input into the programs beginning next summer. The program chairmen asked that physicians in first-year positions or those who were finishing training in programs at Philadelphia be allowed to apply for advanced training either in a basic residency or in a fellowship. We agreed with this reasonable request. However, no one from any other hospital will be allowed to apply for training at Philadelphia.

As I said earlier, there will be no G-1 entries into the Philadelphia programs next year, with the exception of the psychiatry program. We will move that entire program to a new location in the next year or two. The need for Navy-trained psychiatrists is so great that we cannot afford to reduce our training capability in this specialty.

Another area I would like to discuss is the Training Review Panel. As you know, the director of Navy education and training (OP-099) is the sponsor within the Office of the Chief of Naval Operations for Navy Medical Department education and training. The Training Review Panel, which meets each year, represents the first formal entry point into the planning and programming process by which we identify and obtain our resources for the future. This past year we were asked to identify a decrement of a certain per cent which we had to offer up. This is a very real drill. They do not say, "Do you want to offer up something?"; rather they say, "Show us that 10% of your resources that you want attacked and we will decide what we are going to take from you." This

year we offered up many valuable resources in order to reach the 10% decrement that was levied. As a result, the Medical Service Corps lost some of its student billets, and we lost some money needed to support our Armed Forces Health Professions Scholarship students. We hope that the decrement which is imposed upon us next year will not be as severe. However, the whole environment of fiscal restraint is so intense that I am not optimistic.

We were also affected last year by Program Budget Decision No. 238. This decision essentially eliminated our active-duty scholarship programs in order to give the billets to the Uniformed Services University of the Health Sciences. We hope that this year, through the budget cycle, we will be able to recoup enough of those billets to allow us to accept into our active-duty programs graduates of the bio-science curriculum at the Navy Academy, at least through 1977.

Similar actions eliminated any further input into the Nurse Corps Candidate Program, which had allowed the Nurse Corps to support candidates in education programs leading to the bachelor's degree. This was one of the quality programs that the Nurse Corps could offer as a recruiting inducement, and its loss has given RADM Maxine Conder serious reservations regarding future recruiting. The Navy Enlisted Nursing Education Program was also eliminated. This program gave enlisted men and women the opportunity for eventual commissioning as Nurse Corps officers.

Also being considered is a change in active-duty obligation for Armed Forces Health Professions Scholarship students. At the present time, students graduating from medical school under this program do not accumulate an additional obligation for training. A change now being developed at the Secretary of Defense level will impose an additional obligation. This means that these officers will be with us for longer periods of time. We hope to come up with a plan that will keep an officer with us for eight to ten years. This is a logical decision point at which a Medical Corps officer can say "I like the Navy; I am going to stay with it" or "I do not like the Navy; I want out."

Although we are in favor of this change, we do not know the effect it will have on recruiting. It must be carefully evaluated. As you know, I have on several occasions discussed with you our loss of Berry Plan physicians. The new officers we hope to get through the Armed Forces Health Profes-

sions Scholarship Program will be our salvation in the future.

The next area I would like to address is the Navy Active Duty Deferment System. In the future we will graduate approximately 300 physicians each year from our medical school programs. We will be able to accept only about 50% into our own programs for an unbroken continuum of training. Yet the others must be trained. We have several valid options: we can release them for one year of graduate medical education, then call them back into the Navy; or we can release them for three to four years to allow them to find their own continuum of training, even in the subspecialty areas.

If we call them back into the Navy for active duty after their first year of graduate medical education, we *must* give them an opportunity to return to training programs in the specialty areas they want and should have. This is why I have been so insistent, and why we must continue to insist, that the first opportunity for advanced training is given to Medical Corps officers who are serving with the fleet or in other areas of operational support.

One other option to be considered is that of calling a subsidized student to duty for one to two years, and then releasing him to obtain training in the civilian community. Following a full continuum, he would be recalled to finish his obligation as a specialist. This alternative must be given further careful study before it is fully implemented. Obviously it has implications with respect to the dollars needed to support such a program. However, it may prove to be one of the most attractive options for the subsidized physician officer whom we cannot accommodate in our system.

Another initiative that we will be taking during the coming year is reentry into the National Intern and Resident Matching Program (NIRMP). Reentry into this program will obviously put us in the position of sellers in the open market. To be successful, we must have a competitive product. We must ensure that our programs equal the programs offered by the civilian medical community. At the same time, our programs must fulfill Navy objectives for training, a requirement for our continued existence.

With reentry into NIRMP we will be able to attract into our system medical students that we did not have to subsidize. At the same time, we hope to attract high quality student/physicians who have no commitment to us other than their

desire to be in the Navy. To be attractive we obviously must be able to offer them training of the same quality they would have obtained in civilian life. The Navy benefits when these physicians provide us with another source of manpower to help us fulfill our operational health care obligations.

Attracting nonaligned students into our first year of graduate medical education will place additional pressure on students presently subsidized to participate for a period of time in operational medicine. But it also becomes mandatory that we provide a clear path by which they can re-enter a valid continuum of training.

In his welcoming address, RADM Rupnik alluded to the policy established by VADM J.D. Watkins, Chief of Naval Personnel, that all valid Medical Department billets in non-BUMED activities be filled by the end of Fiscal Year 1976. This policy will strongly influence our training pattern. During the past year, we filled only 62% of our flight surgeon billets. If we are to fulfill our mandate, we must encourage physicians to go into operational medicine.

The shortfall in filling operational billets is reflected throughout our entire Medical Corps community, and mirrors exactly the physician distribution problem throughout the United States. The civilian community can afford the gymnastics, gyrations, and mental breast-beating they are going through in order to accommodate this unpalatable problem. But *we* cannot afford this maldistribution; nor will we be allowed to do so. Our physicians must recognize that training only to fulfill their need for professional advancement is not going to be accepted in today's Navy. Members of the Medical Corps must realize that they are naval officers first and physicians second. The expertise required to run an aircraft carrier, fly an F-14, or command a Marine division is no less important than that required to provide health care in today's highly sophisticated medical milieu. The line lives by the rules; we must too. As physicians, some of us may have the idea that "There's nothing quite like us." It's not true.

One last area I would like to discuss briefly can best be described as a body-billet mismatch. As all of you are aware, our present training strength represents almost 28% of our Navy physicians. Unfortunately, this high percentage is not covered by established billets. Furthermore, we have to ask ourselves whether we can justify so large a percentage in full-time training. Perhaps we can.

But this decision must be made analytically and substantively; it cannot be based on emotion and philosophy.

The Surgeon General has agreed to a ceiling of 950 training positions in the next year. These positions will be matched with billets. There will be no more body-billet mismatches. Each training position will be closely linked to a documented and proven need for a physician trained in the specialty. In the future, we must validate each training position. To do so realistically, we will be developing with you a Navy-oriented core curriculum within your training programs. This will allow us to firmly establish a basis of training that enables Navy physicians to provide care in any arena in which we can anticipate their participation. This sort of "documented training to requirements" direction will be reflected in the establishment next year of an operational medicine continuum in graduate medical education. We envision offering the opportunity for approximately 10 Medical Corps officers each year to become fully capable of functioning within the complicated arena of fleet support. These new positions are included in (rather than in addition to) the 950 training positions I mentioned earlier.

I have tried to summarize some of the problems we see at the present time. We are going to ask all of you to become deeply involved in our efforts to analyze the current direction of our training, and to help us to restructure our programs to meet the needs of the future.

We need your help!

"NAVY AMBULATORY HEALTH CARE"

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This presentation was the joint effort of CAPT Bloom and CAPT J.J. Quinn, MC, USN, regional health care coordinator at NRMC San Diego. U.S. Navy Medicine has abridged their comprehensive review of the past, present, and future of Navy ambulatory health care. [Ed.]

. . . The goals of ambulatory health care are straightforward and uncontroversial:

- To provide a system for timely, appropriate entry into our health care system.
- To provide a mechanism for the aggressive early detection of latent disease.

- To reduce morbidity and mortality of the non-hospitalized patient.
- To improve the quality of life for patients with chronic illness.
- To satisfy legitimate perceived consumer needs for health care.

Many of these goals can be met at least in part by nonphysician members of the health team. None, however, can be fully realized without physician direction. If physician direction and future innovation are to be assured, there must be indirect physician participation at least in some measure. It is important to note that none of these goals absolutely requires continuity and comprehensiveness of care as embodied in an ongoing role of a single physician. Continuity and comprehensiveness can be provided by a *system*, rather than an individual. It is toward such a system that the subsequent remarks are directed.

...

The first model of ambulatory health care delivery that we shall describe we call the malignant neglect model. It is probably the most prevalent model in use today. It certainly characterizes many of the non-systems in fashion at our less enlightened naval medical facilities. The malignant neglect model has several different faces. A common presentation follows somewhat this format: Everyone who calls himself a physician has been trained to, and therefore should be able to, diagnose and treat patients. Therefore everyone who is a physician—no matter what his aptitude, competence, importance elsewhere, or inclination—will take his turn in the walk-in clinic or emergency room. We believe that this model is the proximate cause of inefficient and inappropriate consultation referrals, inefficient laboratory test ordering and review, and total demoralization of otherwise fine physicians, paramedics, and patients. The unquestioned rationale for discussing other models is to replace this one.

The second model recently in fashion is the family practice model. In this model the family is the focus of health care. Much attention is given to family dynamics, the psychosocial aspects of the worried well, the liberal use of subspecialists for technical expertise, and the paternalistic physician as the central provider of continuity and comprehensiveness of health care delivery.

This model clearly can accommodate the ambulatory health care goals previously set forth. The model does, however, have drawbacks in our

particular setting. There is a lack of flexibility in relation to the naval mission. Military sick call is not a family setting. Our ships, field units, submarines, and air squadrons require an ambulatory approach and certainly do not have a family configuration. The model appears to neglect or at least deemphasize non-family-oriented problems. Occupational health problems, the infirmities of the widow, the widower, the alcoholic, the emancipated adolescent, the divorcee are left to non-family physicians. Many of the most significant potentially reversible health care problems in our society occur in these disenfranchised groups.

The model limits the number of families served by one practitioner. This is said to be necessary to permit families to be attended in depth. Fine! But who is to care for the remaining volume of suffering and worried humanity? What incentive exists for increasing efficiency of services? How does the model relate to the loose family ties characteristic of many segments of our society?

Lastly, this model requires unrealistic emphasis on the personal physician for continuity and comprehensiveness of care. Is the family practitioner to be excused from participation in a Lebanon crisis? a Costa Rica disaster relief effort? a response to a Berlin blockade or a Cuban missile crisis by reason of an iron clad commitment to a group of families? Worse, are the dependents of active-duty members and the retired community to be deprived of total medical support because their family physicians are called away to react to some higher priority military support mission? If the family practice model is to play some role in naval ambulatory health care, there must be answers to these questions.

The third model is the autonomous hospital-based model. In its worst form, this model is difficult to differentiate from the malignant neglect model; at its best, it lacks applicability to our dispensary and isolated duty station health care needs. The model is best characterized by a group in a hospital that has a separate identity and autonomy from the other inpatient health care providers. In the past, this group has consisted of excess or worn-out internists, surgeons, pediatricians, or gynecologists who are clearly not part of the "in" group.

The model that perhaps has the most potential is the internal medicine integrated model, which requires a commitment by the internist to both primary and ambulatory health care. It further requires that the ambulatory health scene not be

relegated to the status of an internal medicine Siberia, but be fully integrated into the broader spectrum of acute care and general inpatient activity. There are many advantages to this model. Internal medicine has a strong tradition, and good potential for retaining a scholarly dimension in ambulatory health care. This model could easily provide the initial phase for later well-defined alternatives in career planning. There is a tested mechanism for integrating training and research into patient care activities. This is the only alternative that we can identify for the continued existence of internal medicine as a cohesive clinical discipline.

There are, however, substantial drawbacks as well. First the model has been and will continue to be rejected by internal medicine elitists and subspecialty-oriented internists. Second, in some respects the present generation of new, fully trained internists are poorly equipped to teach skills, knowledge, and attitudes related to ambulatory health care. Finally, the dignity and sanctity of the physician-patient relationship will have to replace some of the glamour and romance of the rare physical sign, the obscure fact, the brilliant therapeutic results that are the false idols of all too many internists.

The advancement of this model is a goal to which the Internal Medicine Department at the Naval Regional Medical Center San Diego is committed.

A final model for ambulatory health care might be called the subspecialty vertical integration model. According to this model, the role of the generalist is neither necessary nor desirable. The subspecialist simply cares for the entire spectrum of complaints involving his organ system of interest. The cardiologist, for example, would manage everything from the evaluation of a functional heart murmur to preparation of the patient for the most sophisticated open heart surgery. The pulmonary disease expert would care for everything from the most trivial cough or PPD conversion to the most complex pulmonary function evaluation and the most esoteric systemic fungal disorder.

This model has advantages. The highest level of technical proficiency is most immediately available for diagnosis and treatment of the patients. Since the organ system focus is narrow, diagnosis and therapy can be pursued in depth. There is the opportunity for closer control of the patient, and perhaps for a higher level of quality control. Since

the model does not require the generalist, the resources that he now controls could be redistributed to the various subspecialty groups.

The problem is that while this model is superb for the physician, it is very unaccommodating for the patient. The vast majority of patients seeking health care do not have rare or complicated problems. Rather, they have common problems framed by a psyche that exaggerates, denies, distorts, fears, or ignores the presenting signs or symptoms. For the majority, help is more often than not simple and direct.

Furthermore the model does not make adequate provision for the patient's lack of understanding or knowledge as to which physician to contact first. Is the chest pain a malady for the cardiologist, the pulmonologist, or the psychiatrist? Does the housewife with abdominal pain first seek out the gastroenterologist, the gynecologist, or the urologist? In a model composed of compartmentalized subspecialists, how many limited but in-depth evaluations and referrals will a patient have to endure before finding the subspecialist who understands his organ dysfunction? We do not believe that our society or our Navy will accept this model. We further believe that if internal medicine does not accept the challenge and responsibility of primary and ambulatory health care, this is the alternative model. We are afraid the results would be disastrous and short lived.

...

A subject commonly associated with ambulatory health care is the expanded role of paramedical personnel. Their use is based on two precepts: First, there are mechanical tasks in health care delivery which are essential but do not require extensive skills, knowledge, or understanding on the part of the performer. Second, physicians, in general, often do not have the aptitude, inclination, incentive, or time to perform these tasks.

Prominent among paramedical personnel are physician's assistants. They are well trained, with two years of didactic and preceptor instruction. We think they are well suited for the ambulatory health care system, but they are locked into a rank structure they consider unfair and unrewarding. We have said that PA's can't go aboard ships; yet we train independent duty corpsmen to go aboard ships, and give them more authority than we give the PA's. This seems not only unprofitable but illogical. If we do not accord PA's

appropriate status and responsibility, the prognosis for future recruitment and retention is grim. If the PA system is to be viable, we must let them take a more active part in operational medicine. Let them be medical managers for Marine units. Send them, rather than a medical officer, with an afloat battalion. (The Army does this very successfully.) Allow them to be the third member of a carrier medical department. Let them be the "medical officer" for destroyer squadrons. Let them write prescriptions for all but controlled drugs. If serving alone, give them the same privileges they enjoyed as independent duty corpsmen with the fleet. Change their rank structure to that of the Medical Service Corps or Nurse Corps, if you want to keep this program viable.

What of the nurse practitioner? We feel they can be trained in short courses to serve in chronic care, pediatric, and Ob/Gyn clinics. They should not be in direct competition with the physician's assistants. They should be limited to the three areas mentioned. These categories of nurse specialist should emphasize an extension of nursing skills rather than *de novo* development of diagnostic and therapeutic skills. We consider the family practice nurse practitioner unnecessary. They duplicate the PA's role, and inappropriately overlap the pediatric, Ob/Gyn, and chronic care nurse programs.

The Naval Acute Minor Illness Clinic Program provides for the use of Hospital Corps personnel as screeners and extenders by using decision tree schematics for minor illnesses. Unless this program is carried out in a well supervised, motivated ambulatory health care system, it is ineffective.

There are two additional requirements related to a paramedical team approach. One is the absolute essentiality of high team morale. The paramedic is frequently not equipped with the discipline and maturity that come with the education and experience of the physician. They require personal leadership, good example, calmness, and empathy if they are not to be panicked or immobilized by the dimensions of their activity. The physician, as a manager, must continually attend to this morale responsibility.

The second requirement is a comprehensive strategy of quality control. The quality control program must accomplish the following objectives:

- Rapidly identify errors in medical management that might result in harm to the patient.
- Identify wasteful, inefficient, and potentially harmful practices.

- Identify and assess consumer reaction to the system.

- Measure the system's impact on early detection of latent disease: reduction in morbidity and mortality, improvement in quality of life of patients with chronic disease.

The tools to effect this quality control are not immediately available in usable form. Their early development is of the highest priority.

We wish to turn next to the role of ambulatory health care in Navy medicine. If, in fact, we are working toward a *system* of health care, that system must embrace the ongoing requirements for military sick call, preventive medicine, shipboard medicine, and field medicine. We believe that the internal medicine integrated model best meets both general and military health care needs.

Navy medicine, as it is currently practiced, includes an unequivocal commitment to dependent and retired medical care. For ambulatory health care to fulfill stated goals to these groups, it must be available 16 hours a day, 7 days a week. Patient education topics, such as immunization in disease prophylaxis, the importance of early cancer detection, the ill effects of alcohol and tobacco, must be effectively and honestly presented. There is reason to believe that the best time to deliver these messages is not when patients are well and otherwise occupied, but rather when they enter our system for evaluation and treatment of real or imagined illnesses.

A positive system requires an aggressive program of early detection of latent illness. This does not translate into the annual ritualistic laying on of hands commonly known as the annual physical examination; rather, it is a deliberate search for occult dysfunction in high-risk groups, using automated techniques. This, too, is best accomplished when the patient presents with symptoms, no matter how trivial or how unrelated to the occult disease detection effort.

Many dependents and retired personnel are encumbered with incurable but not mortal illness. Much can be done to improve the quality of life of these people. Simple but profoundly important examples include preventing stroke by the early treatment of hypertension, rehabilitating the stroke victim to self-sufficiency, maximizing articulation in the arthritic, and increasing exercise tolerance in the respiratory cripple.

The number of patients requiring this kind of help is large. Traditional one-to-one physician-to-

patient relationships are inadequate to meet the need. A group approach to patients with similar problems has been successful in disorders such as chronic alcoholism, colostomy and mastectomy rehabilitation, obesity, and some neurotic disorders. Can the group approach be applied to other categories of chronic disease? Probably. We believe the place to try is in that part of the system that cares for ambulatory dependents and retirees.

In order for ambulatory health care to realize its full potential in Navy medicine, it must have a training and research dimension. The training possibilities range from the most neophyte hospital corpsman to the post-residency-trained physician. Needed are sufficient space, a balanced set of training goals, and interested, competent, and sufficient supervision. Here is clearly a wide range of opportunity for the scholarship program medical officer of the future. In addition, the clerkship, residency training, and post-residency maturation periods can benefit from rotations through the system.

Naval regional medical center affiliations with local civilian medical centers are important, too. We firmly believe that the ambulatory medical environment is both appropriate and ideal for medical student introduction to clinical medicine and the teaching of physical diagnosis.

Research opportunities are equally exciting. Ambulatory medicine is the proper setting for double blind control studies over prolonged periods in a setting that approximates the patient's everyday environment. Epidemiologic data and the natural history of disease can effectively be correlated with inpatient and even post-mortem observations. Group- versus individual-oriented rehabilitation programs can be compared.

We have briefly looked at the role of ambulatory care in medical personnel training. We must look now at the problem of training physicians for ambulatory health care. If we want a system of health care, we must provide training in that system. It is instructive to look at three potential models for training. The family practice model has already been discussed. Residency training in family practice provides a good basis for a career in ambulatory health care. There are, however, some reservations as to the usefulness of the product of that program for flexible performance

of military medical missions, or for providing care outside the family group.

The internal medicine residency model is already solidly imbedded in naval medical practice. It provides the trainee with the required background of scientific inquiry and basic science knowledge on which clinical practice must be built. The residency emphasizes a broad approach to the patient, embracing a wide spectrum of age groups, both sexes, multiple organ systems, and the interaction of psychic and organic insult. But for internal medicine residencies to prepare trainees adequately for ambulatory health care, some realignments will be required. The trainee must be taught effective care of trivial illness, and must learn to identify serious problems in a stream of trivial problems. He must know when to probe deeper, and when to skim. The trainee must develop skills as a system manager. He must be given the tools that will enable him to further analyze and alter the system later in his career.

There is a third model for training in ambulatory health care. For convenience, this might be called the fellowship model. This is envisioned to be 12 months of additional training after a 36-month basic residency is completed. The training would develop additional proficiency in both emergency and non-emergency ambulatory health care. It would emphasize experience with sophisticated and comprehensive methodologies for establishing, operating, assessing, or altering ambulatory health care units. It would provide experience in a poison control center, a coroner's office, automated data processing, medical communication networks, prepayment and health maintenance organization plans. A trainee who follows the basic residency and fellowship track should emerge with the solid knowledge and methodological tools he needs to adapt to future change, and indeed lead that change. His training will not become obsolete when expanded ambulatory health care facilities or health maintenance organizations remove the pressure and financial reward from emergency room practice. He will be trained to enjoy and participate in the full spectrum of physician-patient interaction, not just the technologically dramatic but basically superficial involvement of the emergency medical scene.

How does an ambulatory health care system intermesh with naval medical career patterns? An

earlier critical comment was that naval medical career planning was suboptimal. Can a new system of ambulatory health care emphasis contribute to improvements here? We believe that there are at least four possibilities.

The first is a naval career totally devoted to ambulatory health care. Early years might be spent as a practitioner in the ambulatory health care facility of a naval regional medical center. Increasing responsibility would come in assignment as senior physician in remote facilities. There should be opportunities for system analysis and design at the regional level or at BUMED. (This, of course, would mean that there needs to be further BUMED reorganization to acknowledge the importance of ambulatory health care.)

The second proposed career pattern is the integrated clinical career. An initial training phase—for example, in internal medicine—would provide for smooth transitions in and out of ambulatory health care, inpatient management, and acute care medicine. New emphasis on health care goals and readily measured quality assurance would eliminate major league/minor league implications.

The third possible career track is to use ambulatory health care as an apprenticeship for subspecialization. The Navy will always need subspecialists. If there is a quarrel with subspecialization, it is not with the necessity of subspecialty technology and expertise, but rather with the excessive number of these highly skilled artisans. What a delight it would be to deal with subspecialists who, rather than disdaining the frustrated efforts of the generalist, are able to understand and help because they know first-hand the trials and tribulations of such a practice.

The fourth career track is that of operational medicine. An ambulatory health care system would give those individuals whose major interest is submarine, aviation, or field medicine an opportunity to return comfortably to a more clinical setting. Technical skills lost and knowledge forgotten during operational tours could be recovered gracefully. Such physicians should participate in evaluation and design of advanced casualty evacuation systems, ship and field medical facilities and equipment, and effective military preventive medicine techniques. They should be our primary consultants for physical standards for military service.

We believe that the future of naval medicine will require decisions regarding ambulatory health care. We believe the pluralistic approach to

ambulatory health care is wisest. We must continue to study, compare, and measure the family practice model versus the internal medicine model. We must also continue to evaluate and experiment with the various paramedical groups; their strengths and weaknesses must be fully defined and weighed against goals and objectives. This pluralism and study, however, must have limits; it must be followed by a time of decision and a plan of action. What is needed, then, is a timetable of decision making.

We will never be able to predict what resources are needed until we face up to and answer some of the questions we have tried to raise here today. This meeting, and future ones like it, must be the central forum for meaningful debate. Those of you who have lived the naval medical experience, who care for patients, who train young physicians, must be directly involved.

But debate and discussion alone will not provide the required solutions. We need, too, the innovation, the striving, the successes, and the failures of our regional medical centers. A central authority should provide for uniformity in data gathering and arbitrate data analysis; but it should not so constrain and interfere with regional activities that interest, enthusiasm, and effort are dissipated and soon lost.

Some may think we have spoken lightly and disrespectfully of ideals that they hold dear. We mean no disrespect. We have presented some of our ideas, believing in the need for sincere differences in opinion and approach, in the hope of solving complicated and difficult problems. Ambulatory health care is not something we can put away until next year. We must start today to find answers and develop programs that will meet the Navy's needs in the future.

"NAVY MEDICINE—A PERSONNEL PROFILE"

CAPT R.E. Strange, MC, USN
Director, Medical Corps Division
BUMED Code 31

You have heard much this morning about problems in operational medicine and primary care. Unfortunately, our image is not that of selfless devotion to duty in these areas.

We're not the first naval medical officers to have such a public relations problem. Throughout military history, the staff corps in general, and

medical departments in particular, have had difficulties with their images.

My text for this morning is from the novel *Roderick Random*, written in 1748 by Tobias Smollett, who was himself a surgeon's assistant, and later surgeon in the Royal Navy. In the novel, Roderick, the hero, is surgeon's assistant on a British man-of-war which is laying siege to Cartogena in 1745. As they anchor off the port and open fire, Roderick says:

The cannonading, which indeed was terrible, began. The surgeon, after having crossed himself, fell flat on the deck, and the chaplain and purser, who were stationed with us in the quality of assistants, followed his example while I sat on a chest with great discomposure, scarce able to restrain from the like prostration.

The battle continues; cannonballs fly, blood flows, and casualties accumulate rapidly. Roderick goes on:

By this time our patients had increased to such a number that we did not know which to begin with; and the first mate plainly told the surgeon that if he did not get up immediately and perform his duty, he would complain of his behavior to the admiral and make application for his warrant. This remonstrance effectively aroused the surgeon, who was never deaf to an argument in which he thought his interest was concerned. He rose up, and in order to strengthen his resolution, had recourse more than once to a case-bottle of rum, which he freely communicated to the chaplain and purser, who had as much need of such extraordinary inspiration as himself. Being thus supported, he went to work, and arms and legs were hewed down without mercy.

The moral obviously is that 230 years later, our employers rightly or wrongly see us as "lying down on the job, being concerned only with our own interests." We must now fortify ourselves and hew down some arms and legs.

How did this happen? We know that we're trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean, and reverent. What happened to give us so tarnished an image? Why is the line having to remind us to do what they say is our duty?

The reasons are part fact and part misunderstanding, as demonstrated in Table I. In Fiscal Year 1973, 40% of the Medical Corps were either general medical officers, flight surgeons, or submarine medical officers. This fiscal year, 17% of our corps fall in these three categories. The reasons for this are well known to all of us. We know about the changes in medical education and the loss of the draft. It's happened, and it's having severe effects which you are hearing about this morning.

When I was the chief of service, I didn't understand what a billet was, and I strongly suspect that many of you do not. It's one thing for you to call up and say, "I need another surgeon. I have a place for another surgeon." It's quite another thing for you to have a billet for a surgeon.

The Navy has only so many authorized places for officers that it can pay. A certain number of those places are assigned to the Medical Corps. It is a finite number, and cannot be exceeded. So if you need somebody, there must be an identified formal requirement established: and that is a billet. You hear and use the word a lot. It's very, very important, especially in a time of shrinking resources.

A "body," on the other hand, is easier to understand. It is a flesh-and-blood doctor. The message is that to have a flesh-and-blood doctor next fiscal year, you must have a billet.

Table II shows how our billets are now distributed. We have 3,681 billets assigned. We have formal requirements established for that many people in the Medical Corps.

As you see, we have 3,848 medical officers as of the first of September. We do have more medical officers than billets, but we are allowed a certain small percentage of overage. Actually, during the coming fiscal year we will average about 3,770 medical officers.

TABLE I. General Medical Officers, Flight Surgeons, and Submarine Medical Officers

	FY73	FY74	FY75	FY76
Total 2100 Community	4,345	3,971	3,836	3,848*
GMO's**	1,752	1,125	708	657†
GMO % of Total Medical Corps	40%	28%	18%	17%

*Decrease in total 2100 community: 11.4%

**General medical officers + flight surgeons + submarine medical officers

†Decrease in GMO's: 62.5%

TABLE II. Distribution of Medical Corps Personnel

Billet/Body Distribution	Numbers		Percentages		Percentage of Billets Filled
	Billets	Bodies	Billets	Bodies	
Operational Units	621	436	17%	11%	70%
Training Hospitals (9)	1,721	1,933	47%	50%	112%
Others	1,339	1,282	36%	33%	96%
Total	3,681	3,651*			

*Does not include indoctrinees or physicians in transit.

The training hospitals, which all of you represent, contain 47% of our billets. However, they contain 50% of our bodies. In fact, the billets in training hospitals are 112% filled.

Operational units, that is, fleet and Marine Corps units, contain about 17% of our billets and only about 11% of our people. These operational billets are only 70% filled. The greatest shortfall is in two areas: aerospace medicine and the Fleet Marine Force. Aboard Navy ships, where most of the other operational units are found, we are staffed between 90% and 100%. But our staffing of Marine Corps and aerospace medicine billets is so poor that it brings the overall average for campaign operational billets down to 70%.

All our other facilities—such as nontraining hospitals—contain 36% of the billets, with 33% of the bodies. Those billets are 96% filled.

A logical question is: If these operational billets are only 70% filled, are they really valid billets? Should there be doctors in those places? It's a good question, for which we do not have a good answer. In the past we have been remiss in keeping track of all these billets, and in helping our line employers decide when they need a doctor and when they don't.

We're not alone in this physician distribution problem, however. Civilian medical communities have the same difficulty. Last month, *The American Journal of Public Health* [Tokuhata GT, et al: Health Manpower Distribution in Pennsylvania. *Am J Public Health*, Aug 1975] contained a study of medical manpower resources in Pennsylvania. The authors note that 43% of the physicians in Pennsylvania are located in three counties around Philadelphia. They point out that the distribution of health services and personnel is closely interrelated with the availability of health facilities, family income, and health insurance, and that the health care markets are more sensitive to economic demand factors than to need. The authors further state:

The concept of need is also subject to many misinterpretations. This is particularly true when it is applied to health services. Need, as the kind and amount of health care that is believed necessary by medical authorities, is often different from the actual demand for such care. Medically defined need, while it sounds obvious, has not been adequately documented, particularly when applied to a large population.

The moral: Even when we say what is needed, even when we display our studies showing how many doctors are needed in how many places, we are not trusted in the current consumer climate.

People feel that we are operating out of self-interest. We may have done so, sometimes, in the past.

Now, what are we doing to solve these problems? You are all aware of the single manager concept. It is now a pilot project, and our initial reports are encouraging.

We have scholarship students, of whom approximately 200 per year will move into primary care operational medicine.

We also plan to begin using some physician's assistants, under physician supervision, in operational assignments. This will be another pilot project starting this year.

Even with all these programs, of course, we must recruit the proper mix in medical officers (Table III). In Fiscal Year 1975 we recruited 159 medical officers: 128 were lieutenant commanders and lieutenants; 31 were commanders and captains. There were 456 applications, and a ratio of 2.87 applications for each physician taken on active duty.

TABLE III. Physician Recruitment

Year	Quota			Total Applicants	Application/Quota Ratio
	LT-LCDR	CDR-CAPT	Total		
FY75	128	31	159	456	2.87:1
FY76	157	30	187	512	2.74:1
FY77	208	27	235	-	-
FY77	305	16	321	-	-

We have a rigid limitation on the number of 0-5's and 0-6's that we can take in. Most of you, I think, would agree that a captain coming in from civilian life with no previous Navy experience can present many problems. The Navy has real difficulty with this because every captain we bring in means several fewer nonmedical officers who can be brought in by the line.

In Fiscal Year 1976, some 157 0-3's and 0-4's, and 30 0-5's and 0-6's are being recruited. In this fiscal year so far we had 512 applications. Some of these people will drop out, some will not accept their assignments, and some will not be commissioned. So there are still a few slots that will open during the year. But for the most part we are now recruiting for the next fiscal year.

You are aware of the rapid decrease in the number of Berry Plan physicians. We hope to compensate by an increase in recruiting goals to

keep our number up. Therefore, we are going to shoot the moon in the next 15 months: our goal is to recruit 556 medical officers. We think we can be fairly close to that goal, for we have had more success in recruiting than most people anticipated.

After recruitment, let's consider retention. We will look at that from the standpoint of variable incentive pay (VIP), the biggest thing that has happened in the Medical Corps in the last year (Table IV).

Since variable incentive pay was instituted about a year ago, 1,513 contracts have been offered, with 1,348 (89%) accepted. Forty-five percent of these contracts were for one year, 16% for two years, 4% for three years, and 35% for four years.

Has VIP been successful? We don't know yet. However, I want to point out that it had previously been predicted that by 30 June 1975 Medical Corps personnel strength would have fallen to a low of 3,100. It previously seemed that we were really going to be down to that level, maybe lower. Instead, we had 3,426 physicians on that date—326 more than had been predicted. We consider this a very positive sign.

What are we doing in BUMED in order to solve some of our problems? You have heard some charges given us by the Surgeon General. To modernize our personnel management, we are involved in a long-range requirements study. We already have the initial draft. Planning now requires a much more scientific approach to determining requirements. We hope that once we decide what our requirements are, we can sell them to the people who have to support us.

We are working hard to straighten out our misalignment of billets and bodies. We have been charged, and will in fact have the billets and bodies in alignment by the beginning of next fiscal year. It will probably be the most painful part of what we are doing, but it must be done.

We are trying to improve our information system. A detailer's life blood is information. You must know what people want, where people are, and how many and what kind of people you have. I was amazed when I became involved in this business, as most of you would be, when I saw how primitive most of our information processing is. When a job opening comes along, it is frustrating to know that somewhere among the 3,800 medical officers in the Navy someone would undoubtedly like the assignment. It is sometimes very difficult to find that one right individual.

TABLE IV. Variable Incentive Pay
September 1974–August 1975

Contracts Offered	Contracts Accepted	Percent Accepted
1,513	1,348	89%
Distribution by Obligation		
	Contracts Accepted	Percent Accepted
1 Year	606	45%
2 Years	220	16%
3 Years	59	4%
4 Years	463	35%
Impact of VIP on Retention		
FY75 Medical Corps End Strength:		
As Projected	3,100	
Actual	3,426	
Favorable Variance	326	

We are reorganizing the Medical Corps Division to try to increase our efficiency and decrease the occurrence of clerical and mechanical problems. We have specifically assigned an operational liaison officer in the Medical Corps Division, CAPT Don Reid, who just came aboard. We are hoping that we can eradicate the accusation that Code 31 and the Medical Corps are not receptive to the needs of the line. I think we can be successful in this. We are also working for closer communication and liaison with our line bosses in general, particularly with the Bureau of Naval Personnel.

There are those who would say that our union with BUPERS has been an unholy matrimony. As a matter of fact, someone visiting me from the field the other day suggested that we should divorce ourselves from BUPERS. Such divorce is not only undesirable, it is also impossible and illegal. Therefore, we have embarked on a program of conjoint marital therapy. The first result of this is that we're moving from twin beds into a double bed, and we hope to be fruitful and multiply into a new and sturdier Medical Corps.

What can you contribute? With your help, we need to work out educational and career patterns which will develop a medical officer for all seasons. He or she needs to have Navy commitment, operational interest, clinical skills, professional prestige, and above all, devotion to overall patient care and the whole patient. We in the Navy Medical Department can lead the way and establish a precedent for American medicine.

PANEL DISCUSSION:

RADM E.J. Rupnik, MC, USN

RADM R. Laning, MC, USN

CAPT R.E. Strange, MC, USN

CDR J. Cassells, MC, USN

CAPT W.M. McDermott, Jr., MC, USN (Moderator)

Q. Your remarks about the use of non-active-duty for training raise the question of what will be the status of these people with regard to accumulating longevity and retirement credit?

CAPT McDermott: All right, if these people are in training, they will not be accumulating time towards retirement. But as long as they are in a training endeavor, they will be accumulating the same base for longevity that they would accumulate if they were training in the Navy. In either event, whether training in or out of the Navy, they will not be paying off any part of their obligation.

There will be some problems with this plan, but not great ones. And every effort is being made to provide better access to the variable types of pay bonus to which we are privy. RADM Rupnik, do you want to comment on this question?

RADM Rupnik: I'm not sure that I understand what is meant by the question. If the question is will the N.A.D.D.S. medical officers coming in get less pay than somebody trained in the Navy, and will that create a problem similar to what we had with the Berry Planners, then I think the answer is probably "Yes, we will have that type of problem." We're going to have to look for a way to remedy that problem. We don't like the current pay differential between the Berry Planner and the Navy-trained individual, but there is little more that we can do. But of course we'll take legislative action.

Q. I have two questions. First, looking at the operational billets filled versus hospital billets filled problem: it occurred to me that doctors assigned to hospitals who will also go on operational duty will actually be supplementing operational billets. Are we going to be given credit for that operational support? Or will these doctors be counted on the hospital side? Will the line still see us as having too many physicians in the hospital, even though they're actually working aboard ship?

CAPT Strange: That question is being discussed right now. The fact that 70% of our operational billets are filled is somewhat deceiving, when you get right down to it. We're doing much better than that. It's particularly the flight surgeon and surface medicine communities that are causing the trouble.

Now, you're right, when someone goes to ship from pool, he does not show up on the computer as filling an operational billet. But that's a problem we can solve so everybody will know what we are contributing.

RADM Rupnik: May I elaborate on that? We not only are trying to solve it, we think we've found the solution. As you know, the printout that goes to the Bureau of Naval Personnel identifies the percentage of unfilled billets. If the billet sequence code identifies a man as serving in a shore billet when he actually serves aboard ship, the computer will show an operational billet as not being filled.

Now what we can do is identify the man in a billet sequence code so that he can serve ashore in a BUMED-

managed activity. But on the printout he would be attached to the sea billet. So there wouldn't be a discrepancy between the "non-filled" billet at sea, and the actual physician serving there.

We can also do this with Marine Corps billets to avoid a similar discrepancy on the printout.

In other staff corps, I'm told, such as the Chaplain Corps and the Civil Engineering Corps, this is already done. They assign an individual to what they call a "FAC A" billet. This individual works ashore in a non-operational capacity, but is actually part of a Marine unit. The commanding officer of that unit has jurisdiction over him. Whenever the CO wants him to go out on operational assignment, he merely issues orders and the individual reports to the operational unit.

We think we can overcome some of these billet-body discrepancies by that kind of billet sequence code identification.

Q. My second question also concerns the billet versus body misalignment. We saw statistics for medical officers, but not for nurses or hospital corpsmen. It has always seemed to me that if we could find enough secretaries of sufficient caliber, X-ray technicians, laboratory technicians, ward corpsmen, and others who could do their jobs properly, then we could get along with a lot fewer doctors. And I wondered if anybody had anything to say about what the outlook is for nurses, corpsmen, technicians, and paramedical personnel?

RADM Rupnik: As strange as it may seem, there is no billet-body discrepancy for the Nurse Corps or the Hospital Corps. In other words, the established billets are filled to about 90% or 95%. Oh, there is a slight discrepancy, but it's one that is acceptable to all of us. The problem comes in defining billet requirements. That's what we were talking about earlier. What is the actual requirement for delivering acceptable health care?

One thing that hasn't been mentioned yet that I think ought to be mentioned, and I'm not sure whether it appears anywhere else on the program, is that a committee has been formed, headed by RADM Paul Kaufman, to do precisely this: to identify what kind of health care delivery system the line wants, and to determine what kind of system we can establish within the limits of our resources. We'll just have to wait until the committee comes up with those answers, and to find out what the line's acceptance of the answers will be.

To elaborate more on the proficiency, or the perceived deficiency, of corpsmen within our hospital system—we're limited, as you probably know, by law to 3½% of the Navy's total enlisted population. The question is: Is that 3½% of the enlisted population at the time the law was invoked? or 3½% of the enlisted population now on board? The Judge Advocate General's office says it's 3½% of the 500,000 on board when the law was invoked. In reality, regardless of what J.A.G. tells us, we still have to have dollars to support our enlisted corps. If the dollars aren't there, we're going to be held to the number of enlisted people that we now have.

As for the Nurse Corps, I think I was correct when I said that here the bodies and the billets are lined up, and that we have the number of billets established that we've

requested. If that number is insufficient, our manpower authorization people must let us know. Also RADM Kaufman and his group must determine the number we actually need. Paul, would you like to elaborate on that?

RADM Kaufman: Our committee is called the "Navy Health Care Review," and it's made up of Medical Department members, line officers, and representatives from the Marine Corps. Without going into a long-winded description of our goals, I will say that we hope to determine what it is that the Chief of Naval Operations and the Commandant of the Marine Corps want done. And, in that context of the plan, what do they want the Medical Department to do, how much, and to whom? Then it's up to the Surgeon General to determine *how* things will be done.

VADM Custis: Well, the big requirement is to determine what's needed to get the job done—whether it's bodies or billets. If what's needed are more doctors, more nurses, or more corpsmen—more paramedics of one kind or another—then we hope that the study, when it's finished, will assist the Medical Department in getting its resources.

Q. I was concerned about CAPT Bloom's presentation this morning. It seemed to me inherent in it was a threat to the quality of inpatient medical care in the Navy. I feel it is very important to maintain high-quality care if we're going to have a strong Medical Corps, and continue to attract the bright young medical students we are interviewing for the scholarship program and seeing as clinical clerks. If we're going to continue to retain physicians for a career, I think we need to maintain the strong inpatient medical care systems that have developed in the Navy since World War II.

Now the full concept does not seem to me to be a threat to this system, not at all. It seemed to be a logical and reasonable way to move physicians from the inpatient care system out to the fleet: to renew our acquaintance with the fleet, to understand its problems, and to contribute in that area. I support that concept very strongly.

But in CAPT Bloom's presentation this morning, there was a tremendous emphasis on committing an entire internal medical service, one of the biggest teaching services in a major hospital, to outpatient care, with the implication that that in itself can provide enough research and education opportunities to maintain top quality. That is what concerns me. And I'd like to ask Dr. Bloom how can we maintain strong inpatient medical services under the concept he presented?

CAPT Bloom: I think the key to the answer to that question is the balance in integration between inpatient and outpatient care. One of the major ideas I hoped to express is that a major deficiency in outpatient care in the past—ambulatory health care, if you will—was that it was divorced from and unrelated to what is done in an inpatient setting, at least so I have observed during my Navy experience. In the past, I was assigned to fleet units, providing outpatient care in that setting. When I would later join a Navy hospital, the reception I got would be variable. Sometimes it was very warm and there was good communication; at other times, not nearly so friendly.

I share your concern. It is, of course, important to maintain quality inpatient care. The answer to your

question, I believe, is a more balanced, integrated approach to both inpatient and outpatient care.

Q. I've had an opportunity to observe for a brief period of time what I think is one of the most exciting things in Navy medicine today. I mean what's going on in ambulatory health care in San Diego and in Portsmouth. And from my brief observation, I believe that these fears are unwarranted.

But I would like to ask Dr. Bloom if he would elaborate. He talked about physician's assistants, and he talked about nurse practitioners, but he did not talk about the training or utilization of people he calls N.A.M.I.C.s. Could you explain a little bit about the N.A.M.I.C. system?

CAPT Bloom: N.A.M.I.C.s stands for "Naval Acute Minor Illness Clinic" whatever—technician, screener, health care provider, or what have you. They are a group of junior Hospital Corps people recruited and trained locally to interact with physicians providing ambulatory health care. In our system at San Diego, they are given 12 weeks of training. Less than a third of that is classroom training; the majority is preceptor training in an actual ambulatory health care setting.

We ask our N.A.M.I.C.s to triage patients following guidelines provided in the decisionary schematics that I referred to. So they triage patients who do not need direct subspecialty triaging; that is, patients that go into the general clinic setting. The N.A.M.I.C.s take the initial history and perform a very limited physical examination.

Let me hasten to add that the N.A.M.I.C.s are used in an acute minor illness setting. The key words are "minor illness." We're not pretending they are physicians who can take care of complicated or sophisticated problems. But for the multitude of acute minor problems that are seen in our clinic, they are the primary interface with the patient. And at San Diego, every N.A.M.I.C.-patient interaction is reviewed by a physician before the patient leaves our facility.

There are other systems, both in the Army and elsewhere in the Navy, in which there are two groups of patients: one group that is seen only by paramedical personnel, and another group that is seen by a physician. But one of the major elements of our seat-of-the-pants quality control is to have every patient evaluated by both the N.A.M.I.C. and a physician.

The N.A.M.I.C. provides the mechanical elements of patient care: the mechanical elements of triage, of recording a past medical history, some elements of the person's illness, filling out the laboratory chart. We even ask them to write prescriptions. They do not *sign* prescriptions, but in accordance with the guidance which we've established with these decisionary schematics that we're talking about, they have the prescription forms filled out and ready to go. So the major reason for a physician to appear is to make the patient aware of his presence, to detect any inadequacy in the evaluation, and to do a minimal amount of mechanical and technical jobs such as filling out pieces of paper.

But this system works only if there are highly motivated physicians who are willing to work with the N.A.M.I.C.s. It puts the physician in a very secondary role, if you will, in terms of relating to the patient. In an acute minor illness

setting, we think that's appropriate. But we're not so sure that it's appropriate in other settings, that is, with more complicated problems in which there's a lot of emotional overlay, in which all the skills, training, and maturity of a physician must be applied to the problem.

The N.A.M.I.C. program is only one facet of our ambulatory health care delivery system, just as is the Acute Minor Illness Clinic. There must be a consultative facet, a chronic illness facet, a military sick call facet, an identification of latent illness facet: all these are important parts of the entire operation. And I think it needs to be run by someone who not only has ambulatory care responsibilities, but also inpatient care responsibilities. If the supervisors of this type of program spent all their time in that area without any kind of inpatient re-stimulation, then the misgivings that were mentioned earlier would be of more concern to me.

Q. I would like to congratulate Dr. Bloom for seeing and describing the problem correctly, but I don't believe that he has found the proper solution. I don't believe that the training of the internist makes him the most effective physician to manage the ambulatory care. There are wide gaps in the exposure to certain health problems in the training of internists. For instance, internists know literally nothing about management of ear, nose, and throat problems. And that's only one little facet.

I think, rather, that the real problem lies in the general situation throughout the United States: the proliferation of the medical specialist and the expense of training the general practitioner. I agree that we should not overuse the dead-end in family practice as an excuse for naming a person a specialist. However, in my own situation I believe that I could accomplish the same kind of actual patient care with at least half the number of residents I've got. The remaining manpower could be provided by physicians whose training program requires that they rotate through every service in the hospital long enough to become fairly confident in dealing with any of the simpler problems.

Dr. Bloom says that there is evidence that the civilian sector of medicine is now turning towards more general training. I fail to see that tendency at all. In fact, I see the opposite.

Medical schools and medical postgraduate training programs are requiring students, even before they leave medical school, to select specialties. We are locked into that system. Unless the civilian sector changes its own concept of what the medical system requires, I see little chance that we can change it and then compete with a system which is different. As long as the attraction is held out, every medical student who has the ability and the opportunity is going to turn towards the more ambitious road of becoming a specialist. If this situation remains unchanged, and if we in the Navy change our system to one of training large numbers of generalists, we would have difficulty. I think, in competing. I think that both the civilian and the military sector must emphasize the training of generalists.

CAPT McDermott: Thank you. Is there another question?

Q. I have a question for Dr. Strange. If I read the statistics right, approximately 350 physicians were successfully recruited in the past two years: 159 for FY75, 187 for this fiscal year. Is there a breakdown as to subspecialties, or are these new physicians all falling into one particular type of practice?

CAPT Strange: I don't have at my fingertips figures about the spread of specialties. The single largest group is general medical officers, followed by family practitioners. Now everyone believes that his specialty is critical, but some specialties are more critical than others, of course. Anesthesiology is one; so are radiology, pathology, and psychiatry. There are others, but the spread pretty much reflects what we consider the critical areas to be. The largest single group is primary care physicians of various types.

Q. In emphasizing the percentage of doctors who are in training, you seem to be equating medical residencies with flying officers working for a master's degree, or an enlisted man training to be a radar technician—what I would call "nonproductive" training. I think that a good working senior resident is the most cost-effective individual in the Navy as far as the amount of health care delivered for the price. I wonder if there's some way we could reprogram the computer in BUPERS to remove the feeling that the resident is a trainee, and therefore is a nonproductive member; that his training is strictly a cost problem, without the Navy receiving any benefit.

RADM Rupnik: That's a good point, one that we certainly will emphasize when we make our presentation to RADM Kaufman's Committee. I assure you, however, that we have been aware of the productivity of a man in training. But when we consider the productivity of the man in training, we must also consider the nonproductivity of his teacher, so the two have to balance each other out. Obviously, there are more trainees than there are instructors in any given program. So, it doesn't balance out equally.

As a rule of thumb, we use a 50% productivity in any given program. Now, BUPERS, to my knowledge, does not count that in, doesn't count that as half a man contributing, or half a man not contributing when they count our billets. It's counted as a full productive billet. I think we need 50% more in our productive training billets, and we certainly intend to go forward with that concept. It's a point very well taken.

Q. Going back to a topic discussed earlier, in my opinion the ambulatory care system, both in San Diego and in Portsmouth, is certain to augment in-house training. The patient has much easier access to the hospital to start with. The duration of treatment in the hospital is shortened because patients have a much more effective egress into a system that will manage them immediately on discharge. So the resident gets a more concentrated view of the inpatient, in a highly appropriate setting. This augments rather than endangers the in-house training program.

In our primary care program at Portsmouth, we certainly endorse everything that Dr. Bloom said this morning. We are ready to report to Code 3, and we



hope to speak with RADM Rupnik very shortly to describe our quality control system in primary care. We are identifying the shortcomings of the systems, specifically looking for remedies. It looks good generally, but there are certain drawbacks with the system that will have to be corrected.

Second, we are also almost ready with a module of personnel required for health care delivery in the primary care system. And within a few weeks, RADM Rupnik, we hope to present our data as to how many primary care physicians and how much paramedical support is needed to care for certain numbers of people in certain settings. And we have options in these regards. We're very excited about the system, and interested in selling other people on it.

I do have some questions. First, as you accept civilian applicants for active duty in the Navy, what provisions exist for both qualitative and quantitative control of these people? And what features are you looking at in these people so that we can replace the Berry Planners?

CAPT Strange: The routine by which one enters the Navy Medical Department is extremely complex. It may seem as if I'm evading the issue, but I'm not, when I say that each case is truly evaluated individually. I'll vouch for that since I have to take them home each night, each record, thick with everything from medical school transcripts to multiple interviews.

We're requiring that all alien candidates be interviewed by a naval medical officer. This may seem like prejudice, but we have discovered, after getting our fingers burned a few times, that it's very important for us to know somebody who's talked to the candidate when there's some question. We require the same full quota of qualifications from everyone.

RADM Rupnik: I think the real question is "Are we looking for somebody to replace the highly talented Berry Planner that we're losing through the present system?" And the answer obviously is "Yes." When we defer somebody into the N.A.D.D.S. program, we will look for an individual who has the same qualities as the former Berry Planner. And once we identify him, we will put him in a similar assignment to assume the role of the previously displaced Berry Planner.

In addition, if an outstanding academician applies for our direct procurement program, and there is a need for him, we go after him. The problem is that we're severely constrained as far as the number of 0-5 and 0-6 billets available. We have too few to do the job. That is the prob-

lem, and there's no way of getting around it. But we are looking for that talent.

Q. I urge that some sort of recruiting pitch be made to the man who would still be an 0-3, who has just completed his specialty training and may want to get into an academic or quasi-academic setting.

RADM Rupnik: So far the applicants for our academic programs are sufficient to meet our needs. We haven't seen a need for that type of intense recruiting. Our efforts thus far have been at the general medical officer and the family practitioner level. In those few instances where we have needed a particular specialist, we have gone to Recruiting Command and said, "Look, we need a man in this particular specialty, and we'd like to run this ad to see whether there's somebody available in the civilian community who might like to practice in the Navy." We've done that in one instance I know of. We can't do that if the need becomes overwhelming in a particular area. Right now, as I said, the overwhelming need is for general medical officers. That's where we're making our pitch.

CAPT McDermott: In our evaluations of the N.A.D.D.S. deferments, we're not going to skim the cream off for the Navy. If a well qualified young physician comes in, graduated from Johns Hopkins, and says he wants to go to Mayo Clinic for three years, we're going to look quite favorably upon him. We'd just as soon defer him for three years, and then bring him back to us.

Q. My question is for those of us with rapidly expanding primary care programs who need general internists in quantity. Where do we go? What's going to happen to us this year? We will probably have to double our requirement for general interns in order to support this system. Are we going to be able to swap subspecialty billets for general intern billets within the fiscal year?

RADM Rupnik: The answer is simple: no billet, no body.

CAPT McDermott: Somebody's going to have to give up something.

Q. What about this year?

CAPT McDermott: This year we're going to have to meet or fill the billets, or get the billets in line. And in our planning for subsequent years, somebody's going to have to give up something so we can expand the training area where you can identify the greatest need. And I don't think there will be any argument from anyone sitting in this room that that is in the areas you've outlined today.

Q. Can you do that this year?

CAPT McDermott: No.

Q. What are we going to do next summer? We're going to need twice as many internists as we have right now to support our primary care units.

RADM Rupnik: I can't emphasize too strongly the impact that RADM Kaufman's Committee is going to have on how we distribute billets. They're going to have to tell us the quantity of care that we must deliver. They're going to tell us who our beneficiary population will be, what their numbers will be, whom we will eliminate from our system. Obviously, if the Committee decides that the resources we've been allocated are inadequate to take care of the numbers who come to our doors, they will tell BUMED, and BUMED will in turn give the commanding officers permission to turn those people away.

Q. What sort of information do you need from those of us who are delivering the care, and who see what kinds of physicians and what numbers are needed? Do you want papers documenting what we're doing on a time study basis?

RADM Rupnik: To tell you that I don't want it would indicate that I'm not interested in what you can give me. I am interested. I do think that we have a source for determining the workload at each of our facilities, and that source is available to RADM Kaufman. If you feel that the statistics provided us are inaccurate or inadequate, then I think that you, through the commanding officer, should let us know where these discrepancies occur. And we'll correct our manning documents to reflect your workload.

I think the time has come when we can no longer do more with less; we must do what we can with the resources we are provided, and assure that we give quality care. That's all that we're asking our line to give us in the way of guidance.

Q. With regards to the business of supporting a fleet, I would like to point out what looks to me like a discrepancy, and then ask RADM Kaufman a question about it. I think we've all had the conviction that the highest quality Medical Corps we can have is one in which a lot of training is involved. We've assumed that this will produce the highest quality physicians to support the fleet and the Marine Corps.

I've heard some disturbing remarks from people in the Defense Department suggesting that "Maybe they should settle for something less than that quality of physician. Maybe we don't need that if all we're going to do is man the ships and the Marine Corps billets." This seems like a very serious lack of understanding of each other's viewpoints and each other's needs.

I wonder if any attempt is being made to obtain from the operational people not only the number of doctors needed, and the size of the population those doctors must support, but also the quality of physician needed. Does the line understand that there may be differences involved based on whether or not we're running training programs?

RADM Kaufman: Let me go back a bit for just a second. Remember, the first thing we want the line to tell us is, What do you want us to do?

Now if the boss says, "I want you to do this," that's a requirement. But Congress puts a lid on the total number of billets available. So although the Medical Department is given a job, over on another side is the Submarine Corps with a certain number of billets. CNO and the CMC must tell us which job takes priority.

As a Medical Corps officer I share with all of you the belief that a combination of quality, ages, sexes, disease patterns, and all the rest have produced the first-rate Medical Department we have today. As a Committee member, my answer is yes, of course we try to inform the line about our special requirements.

Let's take an extreme case. I think it would be very disillusioning if someone were to say, "I'll tell you what the job is, Doc. I want you to take care of active-duty personnel, and that's it. That's your job. The 'who' is active-duty personnel, and the 'what' is to take care of them, and don't bug me with the rest."

Well, I just couldn't fathom that as a job description, if you will, from the CNO. We trust that the job description will be the kind of thing that will keep us together and help us get the job done. We can't be asked to do more and more with less and less, until we get it all done with nothing.

Q. I would like to speak for the pediatricians in the audience by welcoming the interns to the arena of primary health care delivery. I think we've all sat here very comfortably and understood everything they said since we got into this game.

Secondly, what about the apparent overstaffing of the training hospitals? Has it been taken into account from a cost effective or efficiency point of view? In recent years many of the larger hospitals have taken on a substantial burden in terms of training civilian medical students. In my own department, on any given day, we train about eight third-year medical students from three different civilian medical schools. These are real liabilities, not assets. They are not chief residents; they are takers of time, takers of resources of all kinds, be it people, dollars, or space. Are we taking this into account, and are we conveying this effectively to those who allocate our resources?

CAPT McDermott: This kind of training does not win us any points. They see us as expending much of our resources in this arena. Because let's face it, it's Navy money, and Navy money should go to support the Navy. They could justifiably say, "What has been the recruiting result from having these students in there?" And we can be severely criticized for this effort.

The Air Force and the Army have looked at this area very carefully, and have made definite limitations. And the Surgeon General has directed us to be very critical of the amount of support that we provide.

It's nice to do, but I think truly in many areas we have expended ourselves too far. And it's something that has to be curtailed, or at least looked at from the point of view of "What's it doing for us?"

RADM Rupnik: And no, we are not compensated by the line for the additional effort that you all put out to the betterment of the total Navy Medical Department. We all recognize that. Again, I reemphasize that the Navy Health Care Review Committee will look into all these facets. ☛

The Biological Role of Prostaglandins in Skin

ENS Jonathan T. Lord, USNR
V.A. Ziboh, Ph.D.

The prostaglandins comprise the latest family of compounds to receive intensive study from all fields of medicine. In the 1930's two independent investigators (1,2) described the actions of seminal plasma on smooth muscle. Von Euler (2), who obtained his material from lipid extracts of sheep seminal vesicles, named these compounds "prostaglandins." However, research into these compounds did not begin until the 1960's, when Bergstrom and Sjovall (3) crystallized the prostaglandins. Since that time prostaglandins have been found in almost all tissues investigated, suggesting that these compounds may play a significant role in all animal cells.

CHEMISTRY

Prostaglandins are cyclic fatty acids containing 20 carbon atoms, with a five-membered ring and two aliphatic side chains. As shown in Figure 1, the prostaglandins are derived from fatty acids and differ by degrees of unsaturation and substitution in the ring or side chain. Slight alterations in structure lead to great alteration of physiological properties. The E series prostaglandins are potent vasodilators while the F series are vasoconstrictors.

Prostaglandins are biosynthesized from the essential fatty acids (4,5). They are not stored in the body, but are formed immediately prior to release. A variety of stimuli can trigger the activation of tissue phospholipase A, which cleaves the precursor fatty acid from membrane phospholipids. Figure 2 shows the biosynthetic pathway of prostaglandins from membrane phospholipid.

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ROLE IN SKIN

There have been reports of the biosynthesis of prostaglandin E₂ from arachidonic acid by homogenates of human and rat skin (6-10). Ziboh found the activity of prostaglandins synthetase in the microsomal fraction of human epidermis (10), and showed that the skin prostaglandin synthetase was similar to other tissue synthetase in its response to indomethacin, aspirin, and anti-inflammatory drugs. Skin also participates in the metabolism of prostaglandins. The conversion of PGE₂ into a biologically inert metabolites, 15-keto-dihydro PGE₂, by homogenates of human skin (9) has been reported.

In our laboratory, we have recently demonstrated the interconversion of PGE₂ and PGF_{2α} by human and rat skin extracts (11). This indicates that the enzyme PGE₂-9-keto reductase is present in skin, and suggests that pathophysiological processes in the tissue could be controlled by the relative amounts of PGE₂ or PGF_{2α} present in the skin.

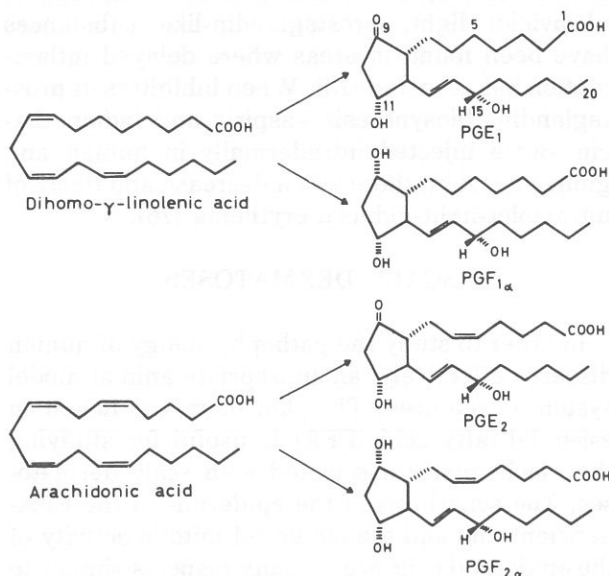


FIGURE 1. Structural formulas of the biologically important prostaglandins and their precursors.

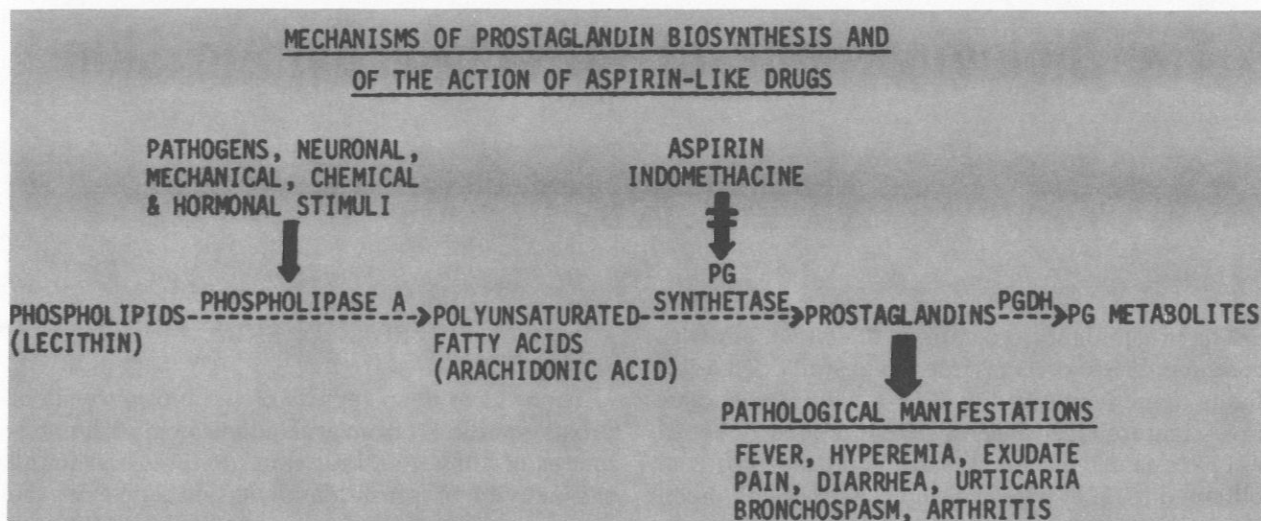


FIGURE 2. Pathway describing release of precursor and biosynthesis of prostaglandins. Inhibition of dioxxygenase by anti-inflammatory agents is indicated.

CUTANEOUS INFLAMMATION

Prostaglandins seem to play a central and complex role in inflammation, and may therefore be related to the pathogenesis and treatment of cutaneous inflammatory diseases. Repeated injections of PGE_1 in human skin have produced a cutaneous inflammatory response characterized by erythema, edema, and tenderness (12). Prostaglandins E_1 , E_2 , F_1 , and $\text{F}_{2\alpha}$ have been localized in the inflamed skin of patients with allergic contact eczema (13) and primary irritant dermatitis (14). After skin has been exposed to ultraviolet light, prostaglandin-like substances have been found in areas where delayed inflammation has occurred (15). When inhibitors of prostaglandins biosynthesis— aspirin and indomethacin—were injected intradermally in human and guinea pig skin, there was a decrease and delay of ultraviolet-light-induced erythema (16).

SCALY DERMATOSES

In order to study the pathophysiology of human diseases effectively, an appropriate animal model system is required. The skin of rats deficient in essential fatty acid (EFA) is useful for studying the biochemistry associated with scaly dermatoses. The acanthosis of the epidermis of the EFA-deficient rats and the increased mitotic activity of the epidermal cells are in many respects similar to scaly dermatoses in human skin (Figure 3). The EFA-deficient skin has decreased levels of

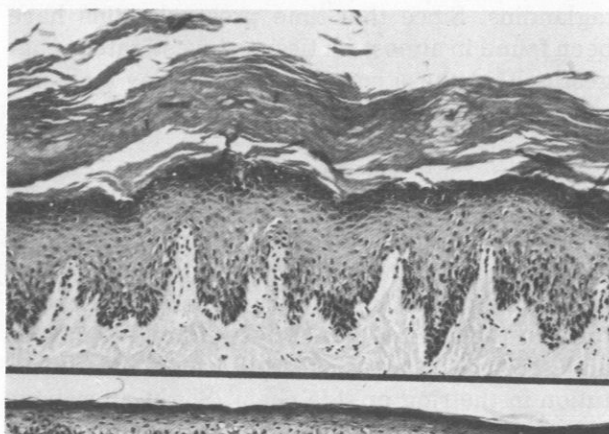


FIGURE 3. Comparison between epidermis of rats deficient in essential fatty acid (above dark line) and epidermis of normal rats (below dark line). Note acanthosis in EFA-deficient epidermis similar to psoriatic tissue.

endogenous PGE_2 and a decreased ability to transform arachidonic acid into PGE_2 (7,17). Ziboh and Hsia (17) showed that the scaly dermatoses of the EFA-deficient rats cleared with topical application of PGE_2 to affected areas (Figure 4), suggesting a relationship between essential fatty acids, PGE_2 , and scaly dermatoses. These results also suggest that arachidonic acid in skin may be the precursor for the formation of PGE_2 , which in turn plays a role in maintaining the normalcy of the epidermis.

Recently we have reported that homogenates of psoriatic plaque inhibit the oxygenation of arachidonic acid, the rate-limiting step in the

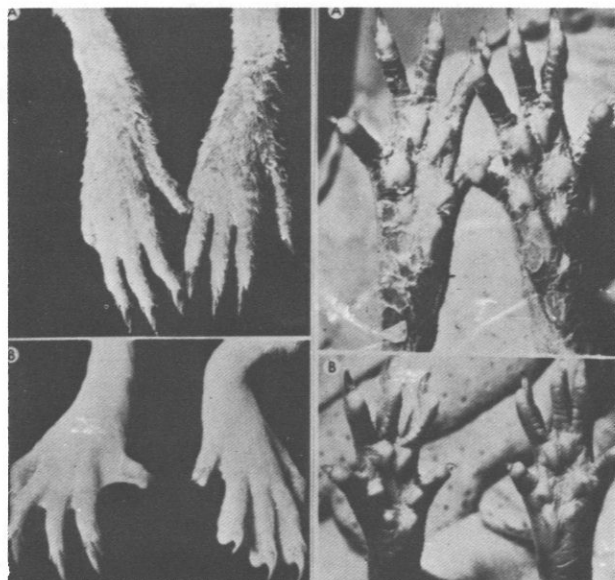


FIGURE 4. Effects of topical application of prostaglandin E_2 to skin deficient in essential fatty acid (top row, marked A). Note clearance of scales after treatment with PGE_2 (bottom row, marked B).

transformation of arachidonic acid into PGE_2 by sheep vesicular dioxygenase (18); these results are similar to results seen in EFA-deficient rats. Additionally we have looked at the pathophysiological phenomena of Woronoff's ring. Fifty years ago Woronoff (19) noted that a blanched area of skin was formed circumferentially around psoriatic lesions. Although its mechanisms were unknown, this reaction was thought to be a consequence of vasoconstriction. Homogenates prepared from the ring inhibit the transformation of arachidonic acid into PGE_2 (20). The mechanism of this interesting phenomena is still unclear and further studies are in progress.

In a recent study we observed that both EFA-deficient rat skin and psoriatic plaque have increased abilities in converting PGE_2 into $PGF_{2\alpha}$ (11). Other reports show that the level of $PGF_{2\alpha}$ in psoriatic plaque is increased as compared to uninvolved skin.

CONCLUSION

The clinical application of prostaglandins in dermatology has yet to be realized. However, it seems reasonable to consider that the use of prostaglandins, its analogs, inhibitors, and activators of prostaglandin synthesis, may aid in the future control of various cutaneous diseases.

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Naval Diving Accidents: A Challenge for Thorough Investigation

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Proper techniques for the medical investigation of aircraft accidents have contributed to an improved record of aviation safety (1,2). No one has been in a better position to appreciate fully the results of pre-planned team investigations than the forensic pathologists and line officers who investigate aircraft accidents and accident fatalities (3). We believe that the Navy diving community might also benefit if similar techniques were applied to the investigation of diving accidents.

Serious diving accidents mean man-hours lost from diving duty, as well as possible permanent injury and medical disqualification of divers. The annual accident rate is 0.076% of all Navy operational dives; the fatality rate is 0.002% (4). There is an annual average of 40 to 50 serious injuries and one to two fatalities among the less than 5,000 Navy divers.

A pre-planned team approach to investigating fatal diving accidents is needed. Of chief importance, such an approach would provide administrative and technical guidelines for the investigation itself. Additional guidelines for analyzing and reporting the data would ensure that the results of the investigation are submitted to a central data bank in a usable form. Recommendations based on analyses of the data in the central repository might, in turn, help reduce serious diving accidents.

The two methods of reporting fatal diving accidents now in use yield incomplete, inaccurate data. For example, investigators submit a one-page report of the accident to the Naval Safety Center in accordance with the OPNAV Instruction 9940.2A (7). But the report is little more than a "fill-in-the-

blank" form; and while the person who submits the report may be familiar with the accident, he may not be versed in the principles of accident investigation.

The second method—line of duty investigation—is directed by the responsible commanding officer and is performed in compliance with the *Manual of the Judge Advocate General* (8). But such line-of-duty investigation often does little more than identify the persons responsible for the accident; minimal attention is paid to identifying and remedying the cause of the accident.

Investigative techniques now in use are not entirely satisfactory. Valuable evidence is often removed from the scene of the accident before the investigation begins because it is difficult to preserve the scene at remote sites, and because no Navy directive offers guidelines for preserving necessary evidence. The lack of advance planning creates unnecessary delays in initiating investigation, and makes it difficult to obtain accurate reports from witnesses. Often, there are no photographs of the accident. Information valuable for retrospective analysis is lost.

At least one pathologist who specializes in the medicolegal investigation of deaths claims that the evaluations of diving accident fatalities are usually not satisfactory (9). From our experience, we believe that two reasons account for this failing. First, much valuable information is not available to the pathologist because it was not actively sought by the investigative team. Yet in medicolegal cases, determination of the cause of death is based not only upon the results of the postmortem examination, but also upon on-the-scene investigation, postmortem radiographic examination, and toxicologic studies. Second, autopsies are often performed by pathologists untrained in the special techniques required for diving accident victims.

The primary task of accident investigators is to reconstruct accurately the chain of events leading to

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the accident. Forensic pathologic examination helps determine the cause, manner, and time of death (6), and aids in identification of the remains. We believe that techniques used to investigate aircraft accidents may be modified for use in diving accident investigations. For example, people involved in the accident should be assured that their testimony will be considered privileged information, and that they will not be punished as a result of anything they reveal. Also, detailed guidelines should be followed to ensure that the accident is accurately and thoroughly analyzed. These guidelines would best be promulgated through a directive applicable to all diving commands. The directive should require that all fatal diving accidents be reported to the Naval Safety Center. Orders would have to be written by the parent command, with funding information and order numbers provided by the funding command. These orders would fund the expenses incurred by members of the investigation team assigned from outside the involved command. The Supervisor of Diving, or the Director of the Deep Submergence Systems Division, and Deep Submergence (OPNAV-23) might best serve as the funding command.

The investigation should begin without delay. A checkoff list, incorporated within the directive, should be followed. Results of the investigation should be reviewed and recorded by the Naval Safety Center, and forwarded to the Office of Naval Operations. Publication and implementation of the investigator's recommendations may be directed by the Director of the Deep Submergence Systems Division, and Deep Submergence (OPNAV-23).

Investigation of fatal diving accidents should include two phases: The "on-the-scene" phase requires prompt convening of the investigation team early arrival on the scene, and complete photographic documentation of the accident site. Prompt initiation of this phase is so essential that in cases arising in remote geographic locations some members of the team would have to be appointed from the parent command. The victim's diving equipment must be properly handled by responsible persons, and *only* under the supervision of a member of the investigative team.

The second phase of the investigation is the medical examination. A naval submarine medical officer would be a logical person to be assigned such jurisdiction, and to perform the medical investigation. A forensic pathologist would provide further medicolegal investigation, and conduct the post-mortem examination.

The investigative team should consist of the following persons:

- Senior board member: A diving officer with extensive experience in naval diving operations. His primary responsibility is to ensure that the team's efforts are coordinated, and that the protocol of the

investigation is followed.

- Equipment specialist: A person knowledgeable about the mechanical and functional features of the victim's diving equipment.
- Diving supervisor: A diving officer or master diver from the Naval Safety Center. This individual needs extensive knowledge of naval diving procedures, and of the underwater working conditions frequently encountered by divers.
- Submarine medical officer: A Navy physician versed in the problems of diving.
- Forensic pathologist: A specialist in the investigation of unexpected and violent deaths. His role might include participating in the on-the-scene investigation of fatal accidents, conducting the postmortem examination, and coordinating the acquisition of materials for further studies. Because his effectiveness as a consultant depends upon early knowledge of the accident, the pathologist assigned to the nearest naval regional medical center might best fill this position.

Training divers and undersea medical officers to serve as members of an accident investigation team could be easily accomplished during initial diving training at the Naval School of Diving and Salvage.

Experience repeatedly confirms that no one person can obtain a total picture of the events involved in a diving accident. A team approach is essential. A comprehensive investigative plan must be prepared *before* it is needed, and all members of the team must be thoroughly instructed in the techniques of comprehensive accident investigation.

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Notes & Announcements

ACDUTRA FOR NAVAL RESERVISTS

Each of the 80 naval regional medical center reinforcement units in the Naval Reserve Medical Program has been identified with an active-duty counterpart regional medical center; the medical center is the designated mobilization site of the unit, and the location for annual ACDUTRA for assigned units, functional teams, and individuals.

In the three-year Reserve training cycle, units are to have two 12-day periods of ACDUTRA at the active-duty counterpart command. The third year is devoted to attendance at a school or participation in military medical programs and exercises. ACDUTRA at the active-duty counterpart command is vitally important for skills training, local familiarization, and peer review; it should be carefully planned in advance through preliminary communication between the unit commanding officer and the Reserve liaison officer at the regional medical center. Besides contributing importantly to mission readiness, the quality of the ACDUTRA experience has a significant bearing on morale, performance, and retention.

Commands must provide an effective continuing training program for their naval regional medical center reinforcement units. It is strongly recommended that this ongoing training program consist of a didactic phase as well as a practical phase. The objective of this continuing training program is to update the reservists' technical skills in specialty areas, and to broaden their general knowledge of other departments of the naval regional medical center where they are assigned. Such training will provide the reservists with backgrounds and skills that increase their flexibility of assignment when they are called to active duty.—BUMED Code 00.

NURSE OFFICER ASSIGNMENT POLICIES

Nurse officer assignment policies are derived from the Bureau of Naval Personnel Manual, BUPERS Instructions, Secretary of the Navy Instructions, Department of Defense policy, and the restrictions and limitations imposed on permanent change of station moves by BUPERS as a result of fiscal constraints. Nursing Division,

Bureau of Medicine and Surgery, desires to be fair and consistent in response to each individual nurse officer. The following policies will be in effect until further notice:

- All assignments must consider: (1) the needs of service, i.e., a valid vacant billet; (2) the career development of the officer; and (3) the personal qualifications and desires of the officer.
- Nurse officers will not normally be considered for reassignment until such time as they have a valid projected rotation date (PRD). Tour lengths are determined and PRD's assigned in accord with the following BUPERS policy: LCDR and up: 3-4 years; LT and below: 2-3 years.
- Cross-country moves will be limited to those few situations where no other qualified officer is available to fill the vacant billet.
- Assignment to an overseas facility will be limited to the unaccompanied officer, or the officer with no more than four dependents.
- To promote command stability and maintain adequate staffing levels, requests for reassignments, regardless of reason, will not ordinarily receive a favorable endorsement until the officer has completed 10 to 12 months at a duty station.
- When reassignment is requested either because of a documented hardship or to be with one's spouse, no-cost-to-the-government orders will be issued, unless the officer making the request has a valid PRD.
- Requests for no-cost orders will not be approved for reasons other than those indicated above.
- Lengthy extensions of tours in especially desirable continental or overseas areas normally will not be granted to either married or single nurse officers. To do so would delay or negate another officer's opportunity for such an assignment.
- A second request for extension of tour length will not normally be favorably endorsed.
- Approval of a request for transfer or extension will not be granted at the expense of the career needs of another officer.
- Married nurse officers may anticipate reassignment to the same geographic area as their spouse provided there is a valid vacant billet for which they are qualified, and provided there is a need to have the billet filled. The fact that a nurse officer is married, however, cannot be the determining factor in his or her assignment.

- Reserve officers are not eligible to resign until the sixth anniversary of their original commission date. They may request release from active duty prior to this time provided they have fulfilled any commitment incurred as a result of educational subsidy.
- An officer is not eligible to resign until two years from the date of acceptance of a regular Navy commission.
- Requests for resignation or retirement will not receive favorable consideration until the officer has completed one year at the duty station.

Commands are requested to disseminate these policies to all staff nurse officers. Additionally, since the number of female married nurses is increasing steadily (now over 33%), nurses anticipating marriage should be counseled that concurrent reassignment cannot be guaranteed or promised. Strength limitations within the Nurse Corps no longer permit assignment in excess of allowance. Each officer should be so advised prior to finalizing marriage plans or career commitments.

Married nurse officers should provide their detailer with information about their spouse: name; occupation, if civilian; rank, rate, year group, Social Security number, designator, rotation date, and duty station, if military; school completion date, if a student. This information can be provided in the "Remarks" section of an updated preference card, and will be helpful in planning for and coordinating husband-wife assignments. —BUMED Code 00.

PRIVACY ACT REQUESTS BY MEMBERS OF CONGRESS

On 9 October 1975, the Office of the Secretary of Defense published required advance notice in the Federal Register (40 FR 47748) establishing the following procedure as a routine use of each system of records maintained by a component of DOD: "Disclosure from a system of records maintained by any component may be made to a Congressional office from the records of an individual, in response to an inquiry from the Congressional office, made at the request of that individual." This change obviates the need for written consent for disclosure when the subject of the record requests the assistance of a Member of Congress.

This change became effective on 8 November 1975. Until a formal change to par. 7A(10) of SECNAVINST 5211.5 is promulgated, the follow-

ing procedures will apply in handling Congressional requests on behalf of constituents:

Upon receipt of an oral or written request from a Member of Congress or his staff, the receiver should inquire as to the originator of the request. If the request for assistance is affirmed to have been originated by the subject of the record, the requested information may be furnished without obtaining written consent.

Where the request does not originate with the subject of the record, the Congressional office should be informed that such information cannot be disclosed without the consent of the subject of the record. If the Congressional office obtains either written or oral consent from the subject of the record, the request will be treated as if it were originated by the subject, and disclosure may be made.

Members of Congress may request that the Department of the Navy obtain the consent of the subject of the record. They should be advised that it is Department's policy not to interfere with the relationship between a Member of Congress and a constituent. The Department, therefore, does not contact an individual who is the subject of a Congressional inquiry.

If the Congressional office insists, the recipient of the request should attempt to secure the consent of the subject of the record. In such cases, written consent is required. If neither the Congressional office nor the Department of the Navy obtains consent, only information required to be released by the Freedom of Information Act and SECNAVINST 5720.42B should be furnished.

In each case where information is disclosed as a routine use, a record of disclosure must be made and maintained for five years or the life of the record, whichever is longer. Therefore, disclosers of information should make a record of disclosure which contains, as a minimum, the name, rank or rating (GS rating for civilians), and Social Security number of the person from whose record disclosure is made; the date, nature, and purpose of the disclosure; the name of the person to whom the disclosure is made; and the Member of Congress for whom he works. The name, rate or rank, duty station, and where applicable, office or title of the person making the disclosure should also be included. This record of disclosure should then be forwarded to the person who maintains the record from which the disclosure is made, or to such activity as is designated by competent authority. —BUMED Code 01.

RESOURCES MANAGEMENT INTERNSHIP PROGRAM

A new program has been established by BUMED to train qualified officers in financial and supply management. The resources management internship program will provide practical training in an actual naval hospital/medical center comptrollership or supply environment. The curriculum for the 12-month program encompasses all phases of resources management, and includes rotational assignments, short external courses, and a formal system for reporting each student's progress.

Initially two Medical Service Corps billets have been assigned to this program. LTJG J. Zarkowsky has been assigned to NRMC Oakland under the preceptorship of comptroller CDR R. McCullagh. ENS P. Powers has been assigned to NRMC Great Lakes under the preceptorship of comptroller LCDR D. Davis. If the program is successful, two more billets will be authorized in the next fiscal year at additional sites.

Interested officers who wish to be considered for this program should submit a letter of request via their commanding officer to Chief, BUMED (Code 7). Before applying, candidates should have completed at least one tour in a hospital or medical center health care administration billet, and should be eligible for rotation.

Overall program director is LCDR G.M. Stant, Jr. (MSC), assistant comptroller for accounting (BUMED Code 46-A). His Autovon number is: 294-4100.—BUMED, Code 46-A.

INTERNATIONAL ARMED FORCES DENTISTRY HONORED AT GREAT LAKES

International armed forces dentistry was honored at Naval Training Center, Great Lakes, Illinois, on 24 October 1975. Some 30 foreign military dental officers and their guests joined RADM Robert W. Elliott, Jr. (DC), chief of the Navy Dental Corps, and Lynden M. Kennedy, DDS, president of the American Dental Association, for a day of activities at the Navy's largest training center.

Visitors included representatives from India, Indonesia, West Germany, Australia, Senegal, the United Kingdom, Spain, Sweden, Norway, France, Greece, and Canada. The officers, all members of the Commission on Armed Forces Dental Services of the Federation Dentaire Inter-

nationale, were attending the Commission's annual conference in Chicago. The visit was also held in conjunction with the American Dental Association's annual meeting.

Following a tour of the Naval Dental Research Institute, a luncheon was held at the Officers' Club. Dr. Kennedy, the featured speaker, noted, "The history of the profession of dentistry is really the history of man's fight to conquer pain." He then discussed a number of historical discoveries and developments in dentistry, pointing out that men and women from different nations and different professions, in their search for new ways to extend man's life, are "partners in progress and brothers in a noble cause."

DENTAL CONTINUING EDUCATION COURSES SET FOR MARCH

The following dental continuing education courses will be offered during March 1976:

National Naval Dental Center, Bethesda, Maryland

Complete Dentures 8-12 Mar 1976

Eleventh Naval District, San Diego, California

Oral Surgery 15-19 Mar 1976

Preventive Dentistry 29-31 Mar 1976

U.S. Army Institute of Dental Research, Walter Reed Army Medical Center, Washington, D.C.

Periodontics 8-11 Mar 1976

Letterman Army Medical Center, San Francisco, California

Oral Surgery 22-25 Mar 1976

Armed Forces Institute of Pathology, Walter Reed Army Medical Center, Washington, D.C.

Oral Pathology 1-5 Mar 1976

Consult BUMEDNOTE 1500 of 12 June 1975 when applying, with the exception of courses administered by the Commandant, Eleventh Naval District. These requests should be submitted to the Commandant, Eleventh Naval District (Code 37).

Cross-country travel for dental continuing education courses and professional conferences will generally not be approved because of funding limitations.—BUMED Code 6112.

PHOTOGRAPHS SOUGHT FOR DENTAL CORPS CHRONOLOGY

In 1962, the 50th anniversary of the Navy Dental Corps was commemorated by the publication of *The Dental Corps of the United States Navy: A Chronology, 1912-1962*. On the Corps' 65th anniversary in 1977, a second volume of the chronology will be published, covering the years 1963 through 1976.

A wide range of photographs is needed for this book: pictures of Dental Corps personnel on duty aboard ship, ashore, overseas, or with the Fleet Marine Force; of dental facilities in the U.S. and overseas, especially new facilities or innovative designs. Any photographs that reflect the diversity of Dental Corps activity since 1963 are welcome.

If you have any such pictures, please submit copies to: Commanding Officer (Code 412), National Naval Dental Center, Bethesda, Maryland 20014.

FLIGHT SURGEONS SELECTED FOR RESIDENCY TRAINING

Of the 24 flight surgeons who applied for FY77 Navy in-service residency training, 20 (83%) were selected. This is a gratifying response to the Surgeon General's direction that applications from operationally assigned medical officers be considered first.

Flight surgeons were selected for residency training in the following specialties: anesthesiology, 1; aerospace medicine, 2; ophthalmology, 3; orthopedic surgery, 6; otolaryngology, 3; pathology, 1; psychiatry, 1; radiology, 1; surgery, 1; and urology, 1.—BUMED Code 511.

FLEET MARINE FORCE ASSIGNMENTS

Medical Department officers assigned to the Marine Corps fall into two categories:

- Those who are Marine Corps oriented and interested in a career supporting the Corps.
- Those who are assigned with the Fleet Marine Force only for a tour of duty.

From an educational and detailing point of view, it is essential to develop a cadre of Marine Corps-oriented Navy Medical Department officers to serve in senior and intermediate command and staff billets. These officers should be graduates of

either the Marine Corps Command and Staff College (CSC) or the Amphibious Warfare Course (AWC), both located at the Marine Corps Development and Education Center, Quantico, Virginia. The CSC accepts CDRs and LCDRs; the AWC accepts LCDRs and LTs. Officers from other services and foreign countries may also attend.

Courses cover all levels of Fleet Marine Force operations. Major areas of study at CSC include command, landing force operations, and strategy. Primary subjects covered in the AWC are organization, weapons, amphibious operations, effective communications, and nuclear/chemical warfare, tactics, and techniques. Many other subjects are included in both courses of instruction. Military and civilian guest lecturers from other areas provide varied views of politico-military policies.

There are other benefits: students learn to appreciate the effort that goes into preparing and conducting military operations. They work in a "group effort" atmosphere, with personnel from the other services and other nations, to arrive at decisions for successful conduct of operations. The professional contacts established in school will be invaluable in future assignments with the Marine Corps.

Medical Corps and Medical Service Corps officers interested in assignment to these schools and future duty in the Marine Corps should contact BUMED Code 3 or Code 54.

AMBULATORY HEALTH CARE SYMPOSIUM TO BE OFFERED AT NRMC SAN DIEGO

Naval Regional Medical Center San Diego, in association with University of California, San Diego School of Medicine will offer a continuing medical education program in ambulatory health care 11-13 February 1976. Half of the program will be devoted to a discussion of specific clinical entities whose management is controversial, difficult, or generally unsatisfactory. The other half will feature organizational policy and philosophical issues in ambulatory health care. These discussions will be practical, concentrating on current critical issues in health care delivery. This program is approved by the American Medical Association for 24 hours of continuing medical education.

For further information contact: CAPT J.D. Bloom, MC, USN, NRMC San Diego, California 92134.

AMERICAN BOARD CERTIFICATIONS (Subspecialties are indicated in parentheses)

American Board of Anesthesiology

LCDR Roy M. Bartee II, MC, USNR
LCDR Mark A. Posner, MC, USNR
LCDR Brady "B" Stoner, MC, USNR
LCDR Frederick E. Youngblood III, MC, USNR

American Board of Dermatology

CDR Leon C. Hodges, Jr., MC, USN
CDR Domingo A. Lopez, MC, USN
(Dermatopathology)
LCDR David H. Deck, MC, USN

American Board of Internal Medicine

CDR Raymond B. Johnson, MC, USN
LCDR Michael A. Crucitt, MC, USN
LCDR Seymour S. Feld, MC, USNR
LCDR Francis C. Gamza, MC, USN
LCDR Joseph A. Kaufman, MC, USN
LCDR John C. Morrison, Jr., MC, USNR
LCDR Peter E. Nielsen, MC, USNR
LCDR Steve F. Price, MC, USNR
LCDR Robert B. Slease, MC, USNR
LCDR Charles C. Spielman, MC, USNR
LCDR Peter L. Washburn, MC, USNR
LT Harry J. Cornbleet, MC, USNR
LT Paul M. Dainer, MC, USNR
LT Charles A. Gordon, MC, USNR
LT James A. Meadows, MC, USNR

American Board of Neurological Surgery

CDR John W. Branch, MC, USN

American Board of Pathology

CDR Philip J. Vogt, MC, USN (Dermatopathology)
LCDR Thomas J. Joseph, MC, USNR
LCDR Bert F. Morton, MC, USNR

American Board of Psychiatry and Neurology

CDR Gerald M. West, MC, USN (Child Psychiatry)
LCDR Walter F. Ray, MC, USNR
LCDR David M. Treiman, MC, USNR

American Board of Radiology

LCDR Frederick P. Gregg, MC, USNR
LCDR Howard A. Griffin, Jr., MC, USN
LCDR Harvey L. Nisenbaum, MC, USNR (Diagnostic Radiology)
LCDR David L. Rankin, MC, USN
LCDR James D. Taggart, MC, USNR

American Board of Surgery

CDR George E. Griffin III, MC, USN
CDR Robert M. Korbelak, MC, USN
LCDR Douglas A. Brownell, MC, USN
LCDR David A. Depp, MC, USNR
LCDR Robert M. Groves, MC, USNR
LCDR Ira R. Tannebaum, MC, USNR

American Board of Thoracic Surgery

CDR Thomas A. Clark, MC, USNR

American Board of Urology

CDR Michael P. McCarthy, MC, USN
LCDR Kevin J. O'Connell, MC, USN

American College of Anesthesiology

CDR Richard Woodburn, MC, USN

American College of Hospital Administrators

Nominees

LCDR James D. Schweitzer, MSC, USN
LT William J. Lambert, Jr., MSC, USN
LT Thomas W. McClintock, Jr., MSC, USN
LT Patrick L. Mahin, MSC, USN
LTJG David G. Daniel, MSC, USN
LTJG William E. Housel, Jr., MSC, USN
LTJG Richard L. Ruoff, Jr., MSC, USN

Members


CAPT Eugene M. Bryant, MSC, USN
CAPT Joseph Feith, MSC, USN
CDR George W. Baldauf, MSC, USN
CDR George P. Kane, MSC, USN
LT William L. Roach, MSC, USN

AWARDS AND HONORS

Meritorious Service Medal

CAPT William H. McNitt, DC, USN

Navy Commendation Medal

CAPT Donald R. Bassett, DC, USN
CAPT David N. Firtell, DC, USN
CAPT Mary J. Nielubowicz, NC, USN
CAPT Harry C. Pund, Jr., DC, USN
CAPT Joseph I. Tenca, DC, USN
LCDR Terry L. Carlberg, DC, USN
LCDR Jerry D. Galbreath, MSC, USN
DN John E. Stalowy, USN 

CHARGES FOR DENTAL CARE

Dental activities do not routinely provide care to noneligible beneficiaries. On an exception basis, however, emergency treatment for such individuals is authorized, within the provisions of MANMED Art. 6-98(6). The Office of Management and Budget establishes rates for such outpatient medical and dental visits; charges must be billed to the patient at current rates promulgated in BUMEDINST 6320.4X. A reminder: charges are not applicable to dependents of military personnel for procedures authorized by SECNAVINST 6320.8D.

CARE OF ALLEGED RAPE VICTIMS

Since the medical treatment of alleged rape victims involves legal, security, and administrative considerations, it is not feasible to promulgate standard procedures applicable at all BUMED-managed activities. The laws and administrative procedures of the jurisdictions where the alleged assault occurred must be applied in handling such cases. Commands are encouraged to review their procedures governing alleged rape victims, and to ensure that consideration for the emotional well-being of the victim is included. Additionally, local training programs should be established for staff members who may become involved in the treatment of such patients.

OBLIGATED SERVICE FOR "C" SCHOOL TRAINING

Some hospital corpsmen report to "C" schools without having signed extension agreements for their advanced training. It is the responsibility of the transferring activity to ensure that obligated service requirements are complied with prior to transfer. Personnel who have not signed the proper extensions may refuse to sign upon reporting for training, with resultant misuse of travel money and embarrassment to the transferring command. It is essential that obligated service requirements be met prior to a student's transfer.

RESERVE UNITS PROVIDE REINFORCEMENT

As part of BUMED-sponsored Program No. 11 of the Naval Reserve, 80 naval regional medical center reinforcement units are now assigned to reinforce 15 active-duty naval regional medical centers in the event of mobilization. Also included in this program are eight Reserve preventive medicine units: three each assigned to the Pacific and Atlantic fleet, one to the 4th Marine Division, and one to the 4th Marine Air Wing. CO's of Reserve units are required to maintain close communication with the Naval Reserve liaison officer at their active-duty counterpart command. A curriculum vitae for each unit member must be submitted to the liaison officer.

NAVY DENTAL RESEARCH

Previous studies at the Navy Dental Research Institute, Great Lakes, using the caries-free human model system have shown Streptococcus mutans to be an important microorganism in the etiology of dental caries in naval personnel. A recent study of the prevalence of S. mutans on the tooth surface of caries-active recruits revealed a predominance of one of the five known S. mutans serotypes (serotype c). NDRI scientists are now searching for specific methods to inhibit the action of S. mutans, serotype c.

Another recent finding at NDRI provides further evidence that an anticaries vaccine is feasible. Scientists there have identified antibodies that are specific for S. mutans in human parotid gland secretion. This evidence strongly suggests that immunization has the potential to boost the baseline antibody titer, and thus to offer a measure of protection against dental caries.

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THIRD CLASS MAIL

GHOSTS OF NAVY PAST? That's what guests at the Fourth Annual New England Osteopathic Assembly wondered when they spotted this display. Actually, it's HMC Malcolm Ward (left), Boston Navy Recruiting District, and HM1 Dan Fahler, Area One Recruiting Command, cleverly disguised in Navy deck hand uniforms of the 1840-1860 era.

HMC Ward and HM1 Fahler turned up with this Navy Bicentennial exhibit at the assembly in Rhode Island last September hoping to button-hole prospective Navy physicians. The uniforms were a loan from WO Henry C. Killingsworth of the USS *Constitution*. The two recruiters were kept busy reassuring prospects that these were *not* the new Navy uniforms announced by the Chief of Naval Operations last summer.



Photo by James E. Knipfer